Foreword

Assalamu’alaikum Wr. Wb. Shalom.

Friends of PABI members throughout Indonesia, we praise and thank you to the presence of God Almighty because we are still in good health. In favor of God, we will carry out the XVI P2B2 in the City of Manado.

Welcome to Manado City. A city full of natural beauty and culinary delights. In the framework of the XVI P2B2, the event will be held on July 2, 2019 until July 6, 2019 at the Grand Kawanua Ballroom, the Novotel Manado hotel with a theme “Safety of Patients of Surgeons in the Age of Universal Health Coverage”

The activities held in the form of panel discussions, symposiums, workshops, tours of the city of Manado and its surroundings, and the Family Program. We invite all of you to come and attend the activities we have summarized

Hopefully what we present can be useful for PABI members and other colleagues as well as accompanying families. Enjoy Manado City.

Wassalamu alaikum Wr. Wb

Fery Kalitouw, MD
chairman of the committee
P2B2 PABI XVI Manado
Foreword from Scientific Chairman

Assalamu’alaikum Wr. Wb.
Shalom.

All praise is always offered to the presence of God Almighty, who has bestowed His mercy and blessings on us all so that today we can be met to attend and participate in the XVI P2B2 event in Manado City. We welcome you to Manado City, a city full of beauty and culinary delights.

On this occasion, the theme that we adopted was “Safety of Patient Doctor Surgeons in the Age of Universal Health Coverage”. Given the continued development of science and technology in the medical world, especially in the field of surgery, we feel the need to convey, strive for and optimize patient and doctor safety for each to become stock and remainder for all colleagues, wherever we are in charge.

This event can be held well thanks to the help of various parties by many parties. Our highest appreciation goes to all the committees who have worked hard for the success of this activity. Hopefully what we present can be useful for PABI members and other colleagues as well as accompanying families. Enjoy Manado City.

Wassalamu alaikum Wr. Wb

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Soerarso’s Memorial Lecture “The Renaissance of General Surgery”

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Dr. Soerarso was a figure that I had known for only couple of years, but during this relatively short period, I had learned a great deal, particularly for his concern about “General Surgery”. I learned about his continuing thought about developing surgical training, the expansion of general surgery as a science and as professional career and the future prospect of general surgery with the influx International Surgeons to Indonesia to work and compete with local Indonesian surgeons. He was very active in developing various training program for young and future general surgeons to be able to compete with their international counterparts. Our respect for his endless effort until his final days, and our pray and thought for him eternally. Our expectation to young general surgeons to know him and his role that brought you all to this big conference. General Surgery was fading away, was actually a fact, especially in countries where surgical technologies had expanded, sub-specializations had matured and extended and in the end of the day, left behind general surgery spirally drowning. In this situation, during Trigonum Meeting IV and Basic Surgical Skill Course in 1998 in Toya Bungkah Village, Kintamani, Bali, where I happened to be one of the instructor with Dr. Soerarso, and Prof. Aryo D. P. I was alerted when Dr.Soerarso came up saying to me “Tjakra, mau diapakan ini Bedah Umum di Indonesia”? I remember answered his words and said “harus dihidupkan kembali Dok”. He said to me to write an article for the coming IKABI Conference. The Renaissance of General Surgery was very much supported by the development of General Surgeons Organization called PABI. The Development of PABI, was not an easy situation, during

Thyroidectomy at a rural district of H. Soemarno Sosroatmodjo Hospital in Kuala Kapuas, Central Kalimantan Province, Indonesia

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Background: The clinical outcome of thyroidectomy may be influenced by among other things, the experience of the surgeon performing the procedure. Furthermore, auditing of any surgical procedure helps in monitoring the safety of the procedure in the hands of the operator. This study is an audit of outcome of thyroidectomy performed by the author within the first 20 months of qualification from a residency program. It aims to record the outcomes as baseline to facilitate future personal and institutional trends of thyroid disease, prevalent in the area.

Methods: This was a retrospective study from April 2016 to December 2017 at Soemarno Sosroatmodjo District hospital in Kuala Kapuas, Central Kalimantan province. The author was posted to this facility after completion of surgical residency at the University of Sam Ratulangi, Manado, North Sulawesi. The patients who underwent thyroidectomy by the author from April 2016 to December 2017. The primary outcome was the complications.

Results: Six patients underwent thyroidectomy during this period. The most common type of goiter was multinodular goiter while the most common type of surgery was total thyroidectomy (66.67%, 4). No complications occurred.

Conclusion: Lobectomy (Isthmolobectomy) and total thyroidectomy can be safely performed by general surgeons qualifying from our local training institutions. Institutional audits are important to document future improvements in outcomes.

Keywords: Thyroidectomy, multinodular goiter, complications

How to prevent amputation on diabetic foot ulcer: a comprehensive management

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In Cipto Mangunkusumo National Hospital, diabetic foot was the most common diseases treated by vascular surgery division in 2018 with sum of 264 cases. It can...
ABSTRACT

be categorized as purely neuropathic, purely ischemic, or neuroischemic with estimated prevalence of each is 35%, 15%, and 50%, respectively. If not treated well, diabetic foot ulcer (DFU) foot can cause gangrene, and lead to amputation. Only two-thirds of DFU will eventually heal, and up to 28% may result in some form of lower extremity amputation. After successful healing, the recurrence rates of DFU are 40% within a year and 65% within 3 years. Previous study also showed that incidence of ipsilateral and contralateral reamputation at 4-8 years are 33.5% and 15.1% respectively. It is also correlated with major suffering for patient and family, and high burden for financial cost. International Working Group on the Diabetic Foot (IWGDF) has made principles for ulcer treatment. First is pressure offloading, as the cornerstone in treatment of ulcers that are caused by increase biomechanical stress. Second is restoration of tissue perfusion, for patient with impaired vascular perfusion consider urgent vascular imaging and, when findings suggest it is appropriate, revascularization. In previous studies, patient with diabetes and limb ischemia who were not revascularized, the limb salvage rate was around 50% at 1 year. After a revascularization procedure, most studies report limb salvage rates of 80-85% and ulcer healing in >60% at 12 months. Third is treatment of infection, using oral antibiotic therapy for superficial ulcer infection, or urgently evaluate for need for surgical intervention to remove necrotic issue for deep or extensive infection. Fourth is metabolic control and treatment of co-morbidities. Fifth is local ulcer care, debride the ulcer and remove surrounding callus. Last is education for patient and relatives. Peripheral artery disease (PAD) is also an important risk factor for impaired wound healing and lower extremity amputation, that should be treated together with others comorbid factors. Successful efforts also depend upon a well-organized team, that uses a holistic approach in which the ulcer is seen as a sign of multi-organ disease.

Keywords: amputation, diabetic foot ulcer, comprehensive management

Endovascular Surgery in a complicated A-V shunt

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The procedure of hemodialysis access is a vascular surgical procedure. Vascular access is indicated in patients with end stage renal disease (ESRD) or patients with end stage chronic renal failure and have to undergo hemodialysis process. AV-Shunt Operation and CDL installation are two techniques for vascular access surgery. Some complications can arise on AV Shunt access, namely: hematoma, stealing syndrome, numerous venous branches in the AV fistula, immaturity of the AV fistula, stenosis and venous flow obstruction, aneurysm degeneration, and central vein stenosis. Handling complications of AV Shunt has gone a long way with the use of minimal invasive endovascular surgery: drill procedure, percutaneous coil embolization, balloon assisted maturation, and endovascular stent graft placement.

Keywords: endovascular, surgery, complicated, A-V shunt

The Experiences of Bowel Obstruction Management in Children

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A bowel obstruction in children, is one of the common cases in surgery even in the rural hospital . Some cases showed unspecific clinical signs and symptoms, causing difficulties in diagnosing bowel obstruction properly. Thus, patients were referred to Secondary Health Services in a bad condition. The most common complications were dehydration and sepsis. In this report, the common causes were invagination, followed by adhesion with the history of the previous abdominal surgery, and incarceration of the inguinal hemia. The diagnosis was supported by X ray, USG, and CT Scan. Almost all of the cases were managed with an operative procedure. The surgery was done per laparotomy, milking for reduction of the intussusception, adhesiolyis, and some cases needed bowel resection with end to end anastomosis. In process, a Pediatrician and Anesthesiologist were always involved and given informed consent to the family as well as.

Keywords: Bowel Obstruction, laparotomy, informed consent.

Microsurgery reconstruction in Breast Cancer Treatment-Related Lymphedema (BCRL)

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Breast cancer treatment-related lymphedema (BCRL) has become a morbidity that significantly affect the quality of life and cost after breast cancer treatment. In Indonesia, the modern BCRL management, especially the surgical approach has not been established yet. Since many locally advanced stage patients in our country need axillary lymph nodes dissection (ALND), adjuvant radiation, and chemotherapy which could increase the risk of lymphedema, it is important to understand and manage lymphedema with up-to-date treatments. Sentinel node biopsy (SNB) and axillary reverse mapping (ARM) are known as surgical procedures which could reduce BCRL’s incidence. Although SNB is developed and used as a standard practice in Dharmais hospital, our data revealed that almost 60% of the patients still needed ALND and nearly 27% experienced lymphedema. Microsurgery and supermicrosurgery reconstructions have been adopted into lymphatic surgical field with promising results. Lymphaticovenous anastomosis (LVA) and vascularized lymph node transfer (VLNT) are the main surgical modalities which are based on the physiologic concept for treating lymphedema. These challenging microsurgical techniques have been applied in developed countries and to solve BRCL in Indonesia, we have started to use the techniques for breast cancer patients.

Keywords: Microsurgery, Breast Cancer, Lymphedema

Mandible fracture a limited resource setting

Hospital Liun Kendage Tahuna, Sangihe Island General Hospital: a case report

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Background: Mandible fracture is a common occurrence in emergency medicine and belongs to the most frequent facial fractures. Facial Fracture can be associated with Haemoragge, Swelling, Increased Secretions, and dislodged teeth which cause additional difficulties in maintaining a patent airway. The ultimate objective of management a mandibular fracture is to reduce and stabilize the fracture, obtain a functional occlusion, and normal anatomy of the jaw.

Case Presentation: Male, 38-year-old presented to Liu Kendage Tahuna, Sangihe Island General Hospital with a chief complain of injuries sustained to orofacial region following an assault. Clinically, on inspection, the patient presented Came An Open wound with a visible segmental left jaw fracture. Pain, Facial Swollen and Blood Oozing also encountered. Injury Mechanism; The left face hit by a Sharpening Blade of Machete Sharpening tool that ejected due to tool failure. No Obvious loss of concusness and difficulties of Breathing Face Physical Examination; 15x5 Cm Open Wound, Bone Exposed, Dirty wound. A visible semental favorable Left mandible fracture extend to mental. Teeth avulsion, Malocclution, StepOff, Facial asymmetry, Pain dan Trismus was present. Urgent Treatment this patient was Wound Debridement, A Definitive Open reduction internal Fixation Applied (ORIF miniplate), Empirical Antibiotic, A Potent Pain Management with drug, A closed Observation and Measure Of airways Blockage alongside to Vital signs. The patient had an uneventful post-operative course and was discharged home with miniplate mandibular fixation intact. Patient was then reviewed once every 3 weeks to assess the integrity of the fixation and general oral hygiene. The miniplate securing mandibular fixation were removed after six weeks post-operative as the patient had a normal dental occlusion.

Conclusion: Mandible Fracture are common in the remote and interior parts of Tahuna, Sangihe Island, and most of the patient have to travel long distances to the cities and incur extra cost which could be minimized in case the health planner did supply essential materials to these areas.

Keywords: Mandible Fracture, ORIF miniplate, Management, Limited Resources.

Transoral Endoscopic Thyroidectomy Vestibular Approach (TOETVA) in RSUP Prof. dr. R. D Kandou Manado

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Transoral endoscopic thyroid surgery through vestibular approach (TOETVA) is well accepted by patients and doctors because of its minimal invasion, excellent cosmetic effect and accessible approach to both thyroid lobes. This study was done to introduce the TOETVA as a recommended choice in minimal invasive surgery for thyroid nodule. At the RSUP Prof DR R D Kandou, Manado, Indonesia, from January 2018 to May 2019, 8 patients presenting with Thyroid nodule limited to 10 cm in size. The ultrasound confirmed TIRADs 2, cytology confirmed a benign tumor, and thyroid function tests were normal. These patients fulfilled the inclusion criteria of TOETVA and TOETVA were performed. Average time in operation was longer, range from 110 – 130min with different level of difficulty, however, the procedures were performed successfully. There was minimal bleeding and no injury to the laryngeus nerve and the parathyroid glands while this operation was done. All patients discharged from the hospital two days after the surgery without any complication and they felt satisfied with the cosmetic result. Nodularity of thyroid tissues is common among thyroid abnormalities. Surgery still plays the role as the main treatment of the disease. Endoscopic thyroidectomy is a favorable approach to treat patients with benign nodules, Grave’s disease and thyroid cancer which has 1–2cm cancer nodule without extra thyroid extension. TOETVA with the potential for scar-free surgery is a safe and effective procedure. TOETVA is considered a viable alternative for patients who have been indicated for surgery with excellent cosmetic results.

Keywords: TOETVA, Endoscopic, Vestibular

Comprehensive management in chronic venous insufficiency

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Chronic venous disease is defined as an abnormally functioning venous system due to venous valve incompetence with or without associated venous outflow obstruction, which may affect the superficial venous system, the deep venous system, or both. This disease has various clinical sign and symptom. The prevalence that has been reported for telangiectasias and reticular veins were 80% in men and 85% in women, varicose vein were 40% in men and 16% in women, ankle oedema was 7% in men and 16% in women, while active or healed venous leg ulcers occur in 1% of general population. Classification of CVD that we use in daily practice is CEAP. This classification identified the clinical sign, etiology, anatomical, and pathology of the CVD. It helps to determine the prognosis and management of CVD. The management of CVD consist of education, compression, medication, physiotherapy, and surgery. Minimal invasive surgery of CVD such as EVLA, RFA, sealing, and ablation become a favor for the patients nowadays. This choice of treatment cannot stand alone, a better understanding about the pathology, clinical state of the disease, and the effectiveness of each treatment will help us as surgeon to combine and give the comprehensive management for our patient.

Keywords: comprehensive management, venous insufficiency

Management of thyroid carcinoma: how to prevent pitfalls in thyroidectomy & what next after surgical treatment?

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Thyroidectomy is one of the most commonly performed operation in thyroid malignancy. The thyroid gland is endocrine gland which also produces thyroid hormones that play a role in the body’s metabolism. In thyroidectomy we have to pay attention not only at anatomical structure but also to the thyroid hormone level (whether it is in euthyroid, hypothyroid or hyperthyroid state). The pitfalls in thyroidectomy are a condition of difficulty which occurs during surgery. To avoid that preoperative examination should be well performed and several examination test should be done such as thyroid function examination, as well as ultrasonography (USG) of the thyroid and neck region. Thyroidectomy should be performed in euthyroid state to prevent thyroid crisis during surgery or postoperative electrolyte imbalance. The recommended surgical technique...
is a capsular dissection with pay attention detail of the anatomical structure and variation to both thyroid tissue and surrounding tissue. With this technique common complication due to thyroid surgery such as injury of recurrent laryngeus nerve, superior laryngeus nerve, the parathyroid gland and bleeding could be avoided. Management Thyroid Carcinoma after surgery depend on the extent of the operation. If lobectomy or isthmolobectomy was done for example in malignant case due to single nodule, size of nodule less than 4 cm no further treatment is needed. For patient who undergone total thyroidectomy, it should be followed by RAI at 4-6 postoperative weeks to ablate remnant thyroid and continued with TSH suppression and substitution therapy for 3-5 years with levothyroxine.

**Keywords:** Thyroid Carcinoma, Thyroidectomy, Surgical

### How to implement HAL RAR procedure in daily practice?

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HAL (Hemorrhoidal Artery Ligation) was developed in 1995 by Dr. Morinaga from Japan. At the end of 2005, Agency for Medical Innovation (A.M.I.) improved the technique by adding the RAR (Recto Anal Repair) to repair the prolapsed mucous layer. At first, the concept of HAL RAR was difficult to be accepted in medical society, but this changed after many scientific studies and medical reports were published that proved that HAL RAR can provide optimal therapeutic results both in terms of patient effectiveness, safety, and comfort. HAL is effective for 2nd and 3rd degree internal hemorrhoids (mild to moderate). The HAL RAR machine is equipped with Doppler Ultrasound. This Doppler probe is inserted in the anus to detect arteries that trigger hemorrhoids. By ligating the detected arteries, the blood supply to the hemorrhoids is blocked and the hemorrhoids will shrink. The ligation is only done in the mucous layer, so that it does not damage the nerve and the muscle, and the pain caused is minimal.

The procedure of HAL can be performed on 5 to 8 arteries. The amount of the ligations is variable, depending the severity of the disease. RAR is used to treat prolapses that occurs in hemorrhoids. RAR is carried out as a follow-up of HAL for higher hemorrhoid degrees (3rd and 4th). By combining these methods, HAL RAR is an effective method for treating mild, moderate, and severe internal hemorrhoids. Nowadays, the HAL RAR procedure is commonly used in European countries, such as Austria, Germany, France, England, and since the beginning of 2000, in America and several Asian countries. In Indonesia, HAL RAR has been used since 2013. The HAL RAR procedure is a minimally invasive, effective, safe and comfortable procedure for patients.

**Keywords:** Abraion wound, facial trauma, road tattooase

### Facial trauma: how to manage the abrasion wound?

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Facial trauma almost followed by injury into the underlying skin tissue. The amount of protrusion or prominence in facial bone has the potential to increase the injury in the skin and the underlying structure. Abrasion wound is kind of injury occurred in facial trauma and often ruled out in the management of facial trauma. This can be challenging because the face injury on the element of the emergency often become the main focus, but the minor injury ignored. Patients who came to the Polyclinic Surgery after trauma often complain of thick and injured scars with bluish green under the skin that interfere with the appearance. This condition is called road tattooase. Its condition will make the patients anxious and contradictory because the impossibility with the necessary modalities can eliminate the sterile particle granules (with no infections) that have been distributed under the skin so that the doctor cannot get optimal treatment. Frequently, the effort to remove the road tattooase with a surgical procedure makes the scar worse. Good management of abrasion wounds will be able to prevent tattooase road. The maximum wounds washing and cleaning debris and all the dirt that attaches to the wound are the key to the successful management of abrasion wound, although the pain usually perceived when the wound washing is done. The topical, infiltration and general procedures can be given, followed by disinfection of the wound with betadine. The wound washing is done with 1:4 savlon, then the debris is removed with gauze moistened with savlon. The particles such as salt granules or sand must be removed cleanly using a soft toothbrush (baby toothbrush) gently so it does not damage the bridges of the skin and tissue still healthy. Assessment of skin damage is very important, so that not to remove excess skin which will cause deformity and bad scarring. After washing and cleaning debris, the laceration wounds can be approximated by stitches. The wound then is covered with a moist dressing such as hydrocolloid. The moist dressing replaced routinely until epithelialization occurs. The development of scarring then observed.

**Keywords:** Abraion wound, facial trauma, road tattooase

### Popliteal artery injury following knee dislocation and tibial plateau fracture: a case report

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**Background:** Fractures of the extremities was not rarely led to vascular injury. Popliteal artery injury is commonly occurred with knee dislocation and complex tibial plateau fractures. This injury should be identified earlier for limb-saving.

**Case Description:** This case report described a 37-year old woman with pain at the left knee after falling from motorcycle. Physical examination showed sign of paleness, coldness, and unpalpated arterial pulses of tibialis posterior, dorsalis pedis, and popliteal artery. Peripheral oxygen saturation of all fingers of left lower extremity were not detected, led to a suspicious of vascular injury. Plain radiographs revealed left tibial plateau fracture and knee dislocation while arteriography showed the occlusion of left popliteal artery until the trifurcation. Closed reduction and immobilization was done and open exploration bypass surgery was then carried out. Successful repair was proved by the return of distal pulses and the detection of oxygen saturation in the range of 99-100%.

**Conclusion:** Detailed vascular examination should be emphasized in fractures

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**ABSTRACT**

Patients who came to the Polyclinic Surgery after trauma often complain of thick and injured scars with bluish green under the skin that interfere with the appearance. This condition is called road tattooase. Its condition will make the patients anxious and contradictory because the impossibility with the necessary modalities can eliminate the sterile particle granules (with no infections) that have been distributed under the skin so that the doctor cannot get optimal treatment. Frequently, the effort to remove the road tattooase with a surgical procedure makes the scar worse. Good management of abrasion wounds will be able to prevent tattooase road. The maximum wounds washing and cleaning debris and all the dirt that attaches to the wound are the key to the successful management of abrasion wound, although the pain usually perceived when the wound washing is done. The topical, infiltration and general procedures can be given, followed by disinfection of the wound with betadine. The wound washing is done with 1:4 savlon, then the debris is removed with gauze moistened with savlon. The particles such as salt granules or sand must be removed cleanly using a soft toothbrush (baby toothbrush) gently so it does not damage the bridges of the skin and tissue still healthy. Assessment of skin damage is very important, so that not to remove excess skin which will cause deformity and bad scarring. After washing and cleaning debris, the laceration wounds can be approximated by stitches. The wound then is covered with a moist dressing such as hydrocolloid. The moist dressing replaced routinely until epithelialization occurs. The development of scarring then observed.

**Keywords:** Abraion wound, facial trauma, road tattooase
to identify the possibility of injury earlier. Early management could be managed by open by pass surgery, preventing the need of amputation.

**Keywords:** popliteal artery injury, knee dislocation, bypass

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**Medicolegal aspect of colorectal anastomotic leak**

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High risk for malpractice claims in colorectal cancer are: delay in diagnosis of colon and rectal cancer and appendicitis, iatrogenic colon injury (colon perforation), iatrogenic medical complication during diagnosis and treatment, sphincter injury with fecal incontinence after anorectal surgery and lack of informed consent. Colorectal anastomosis leak can be considered as iatrogenic medical complication. To prevent colorectal anastomosis leak, several efforts based on evidence should be done. Unfortunately, there is no comprehensive guideline for colon anastomosis. From several recent reference we propose an effort to reduce the colon anastomosis leak: 1) Correct the manageable risk factors (i.e: transfusion, malnutrition etc); 2) Good Pre-operative preparation (oral antibiotics, bowel preparation); 3) Antibiotics prophylaxis; 4) Complete and documented informed consent; 5) Good decision for primary anastomosis or colostomy/ileoamnectomy; 6) Good surgical technique for anastomosis; 7) Doing leak test routinely; and 8) Accurate monitoring for early detection for post-operative and leakage and do early intervention. Although, we consistently manage the case based on evidence, it is not guarantee that the complication will not be occurred, therefore good informed consent is mandatory. We have to explain to the patient that we offer the best process not the best of result. It is believed, if we have already managed the patients based on the guideline or best current evidence and already gave informed consent accurately, the risk of malpractice sue will be minimized.

**Keywords:** Colon anastomotic leak, malpractice sue, evidence based, informed consent.

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**The new approach for hemorrhoid therapy: the rational and the advantages of HAL-RAR procedure**

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Hemorrhoids is the symptomatic enlargement and distal displacement of the normal anal cushions. Anal cushion consisted of vascular part and non-vascular part. Vascular part consisted of small arteriole, tinny arteriole and direct arteriovenous anastomosis that form a sinusoid and the blood then drainage to superior and medial rectal vein through tinny venule. There is a sphincter like structure in the arteriole to control blood flow to the sinusoid. The non-vascular part consisted of transitional epithelium connective tissue, elastic and collagenous tissue, and muscle of Treitz that consisted of Park ligament and Sub-mucous muscle. The anal skin and mucosa are very rich with free nerve ending, therefore very sensitive to pain. The nowadays accepted theory of hemorrhoid development is sliding of the anal cushion due to chronic excessive straining caused by difficulty in defecation. It is in accord with the fact that in pathology examination there are muscle of Treitz, elastic and collagenous tissue breakdown, dilatation of sinusoid, diminish of the sphincter like structure within arteriole and increasing of the diameter and the blood velocity of superior mesenteric artery and its branch. The management of grade 2-4 of internal hemorrhoid that fail from non-operative management is operation. The traditional surgery for hemorrhoid is removing the enlargement of anal cushion radically (Ferguson or Morgan Milligan method) or circumferentially (White Head method) for big circular grade 4 internal hemorrhoid. Those method has been used for long time and effective to prevent recurrence, but many patients reject to do this kind of operation due to painful. Experts try to find minimally invasive hemorrhoid surgery that less painful and effective in preventing recurrence. Stappler hemorrhoidopexy (SH) has already been develop to cut the artery and lifting up the anal cushion. Since it is done without guidance to detect artery, it is still a big question, how effective to cut all of the branch of superior rectal artery. An evidence showed that after SH around 80% artery is still detected after 1 moth followed up. Doppler Guided Hemorrhoid artery ligation (DG-HAL) offer the precise location of the artery and facilitate the correct ligation. By artery ligation the enlarge anal cushion will shrink, however big anal cushion enlargement needs upward fixation (RAR= Recto anal repair) to speed reducing the size of anal cushion. Several researches showed that DGHAL-RAR significantly less pain in comparison with SH or excisional hemorrhoidectomy and on long followed up the risk of recurrence and other complication are similar.

**Keywords:** Internal hemorrhoid, Stapler hemorrhoidopexy, Doppler Guided Hemorrhoid Artery Ligation and Recto-Anal Repair.

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**Score in trauma patient**

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Trauma is a major health problem in developing countries. Trauma can cause damage to the human body both physiologically and anatomically. In trauma patients, time is very important because it requires an easy-to-remember and carried out method (for initial assessment). Trauma scores are used to predict the severity of trauma or death and help doctors to determine appropriate treatment for trauma patients. Anatomical scoring system: AIS, ISS, NISS, APS, ICDMAP-90. Physiological scoring system: GCS, RTS, APACHE-II. Scoring system combination: TRISS, PTS. There is no universal and constantly revised, tested, and compared with each other. The Indonesian Surgeons Colegium used TRISS.

**Keywords:** Trauma, Score in Trauma, physiological score, anatomical score, combination score (TRISS).

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**Endovascular surgery on Peripheral Artery Disease (PAD)**

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Most patients with peripheral artery disease (PAD), whether the patient comes...
ABSTRACT

Many vascular problems can now be treated by endovascular methods in both the elective and emergency settings.

Keywords: vascular, endovascular, aortic, central vein

The policy of utilization of medical specialists in the era of National Health Insurance (NHI)

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Head of Center for Planning and Utilization of Health Human Resources on The Ministry of Health of The Republic of Indonesia

It is known that the fulfillment of medical specialists is still a strategic issue in term of improving the quality of health services in Indonesia. Actually, the number of medical specialists in Indonesia especially four basic types of medical specialists, is quite a lot. However, they prefer to work in big cities. Only a few medical specialists are willing to serve in remote areas. Local governments difficult to bring in and recruit medical specialists, so people in remote areas have never been touched by specialists. Specific cases that should be handled at the hospital in the area need to be referred, whereas to refer patients from remote area, they must travel long distances, take long time, and need lot of money, while the geographical conditions and economic conditions were so difficult. This certainly has an impact on the quality of health services in remote areas. Lack of medical specialists led to not only morbidity but also referral rates, while maternal and infant mortality rates continue at an alarming level. Therefore, the Central Government through the Ministry of Health in collaboration with all relevant stakeholders, made a breakthrough by creating a medical specialist placement program with the name of the utilization of medical specialist. The policy of utilization of medical specialists is a continuation of the mandatory work of medical specialist which has been running for 2 years since 2107. Within the framework of the mandatory work of medical specialist, the Ministry of Health has placed 2,298 medical specialists in 653 government’s hospitals at 431 districts in 34 provinces. The presence of medical specialist through medical specialist utilization program brings great hope for increasing the quantity and improving the quality of health services in remote areas. Medical specialists who participate in this program work not only to provide health services but also to help to build and improve the health care system in their hospitals. The existence of this program in national health insurance era provides many benefits for people in remote areas, especially in strengthening service systems and reducing service burdens. Utilization of medical specialist program is a strategic policy in order to fulfill and even distribution of medical specialists in the era of national health insurance, in which its implementation prioritizes the principles of quality control and cost control.

Keywords: strategic policy, utilization, medical specialist, remote areas, commitment, health services, and quality

Complication management of thoracic trauma

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Overall the thoracic trauma mortality rate is 10% where thoracic trauma causes one (25%) of four deaths due to trauma. Many sufferers die after arriving at the hospital, and many of these deaths should be prevented by increasing
ABSTRACT

How to evacuate hematomas in Traumatic Brain Injury (TBI)?

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Conservative management of traumatic intra-cranial hematoma is still an important part of treatment, especially when during admission the surgical intervention is uncertain. Hematoma might evolve overtime, and surgical intervention might not necessary. Regular and periodical clinical evaluation would have to be conducted and that is to look for early surgical indications. A significant number of patients, harboring small/ minimal epidural or subdural hematomas for instance with lesion thickness less than 10 mm or midline shift less than 5 mm, could be managed conservatively. The current neurosurgical practices had revealed that a large number of post-traumatic hematoma patients were operated on either within 24 hours for acute subdural hematoma as prevailing lesion, or later for parenchymal hematoma as the prevailing lesion. According to recent European Study, about one third of these patients (with minimal hematomas) had undergone surgical decompression as well, although the “evidence base” of this procedure in term of improving the outcomes, was still uncertain. So that the aim of this study is to analyze the surgical indications for the treatment of post-traumatic intracranial hematoma and how to evacuate intracranial hematomas properly and efficiently. Surgical intervention is still a frequent treatment modality chosen in the management of post-traumatic intracranial hematoma, although it is barely supported by level 2 evidence base studies. Bone flap decompression should be considered, when other modalities of treatment to lower/ decrease intracranial pressure had failed.

Keywords: cranietomy, decompressive cranietomy, hematoma, surgical techniques, timing of surgery.

Advanced management of thoracic empyema

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Thoracic Surgery Department, Persahabatan Hospital, National Respiratory Referral Hospital

Thoracic empyema is one of several types of thoracic infections that is still common in Indonesia. It affects children and adults, with vary clinical course, and it can cause by Tuberculosis infection or other microorganisms. The basic principles of the treatment of empyema; drainage of the pleural space, effective antimicrobial, and obliteration of the empyema space, are still relevant until now. Wide range of surgical interventions, from the simple pleural aspiration to the major surgery such as thoracoplasty are needed in the treatment of thoracic empyema. During the last decade there are no major changes in the surgical technique for thoracic empyema, except the advancement of minimally invasive surgery by means of Video Assisted Thoracoscopic Surgery (VATS). The
diagnostic and therapeutic abilities. Less than 10% of blunt thoracic trauma and only 15-30% of thoracic trauma require thoracotomy. The majority of thoracic trauma cases can be treated and managed by non-operative measures or only intra-thoracic tube placement. On the Emergency Department of the Dr. Soetomo Hospital in Surabaya, for 20 years (1987 to 2006) there were 2863 thoracic trauma patients (0.75%) out of total of 380585 emergency patients treated. Most of the thoracic trauma patients (± 58%) were treated non-surgically and ± 37% were treated with intrathoracic tube insertion and only ± 5% performed thoracotomy. The complication rate of thoracic trauma is 11, 43%. Although there are a wide range of complications following thoracic trauma, respiratory failure, pneumonia, and pleural sepsis are the most common potentially preventable problems. A program aimed at aggressive pain control, mobilization, and pulmonary care can reduce the risk of respiratory failure, pneumonia, pleural sepsis, and death in these patients.

Keywords: Thoracic Trauma, Complication, Management

Ethics in severe surgical cases

Peter Johannes Manoppo
UNESCO Chair on Bioethics

Facing surgical cases means facing three challenges of health care delivery, the illness, the surgery including anaesthesia and the aftermath that consists of consciousness recovery and post-operative healing. Most of ethical concerns might raise on these challenges, particularly during the post-operative aftermath. Severe surgical cases such as multiple-trauma, infant and elderly surgery, surgery with complications, advanced cancer, and end-of-life surgical care, could make a very difficult decision making on to what extent the surgeon would be able to deliberate when to withhold or withdraw the surgical treatment, based on the proper ethical ground which is built from ethical principles, care ethics, dignity-enhancing-care, vulnerability, truth-telling, respecting the patient best-preference and autonomy, without ignoring patient-safety and quality-of-life.

Keywords: severe surgical cases, ethical concerns, withhold, withdraw, best-preference, autonomy.

Emergency in paediatric surgery: how to manage and communicate to his family

Poerwadi
Paediatric Surgeon

Cases of pediatric emergency surgery require immediate surgery can be to trigger anxiety in the families and even the own doctors. Because of the sudden attack of critical conditions, the anxiety experienced by the family cannot be prevented. Fear of death, uncertain results, emotional turmoil, financial problems, role changes, routine disorders, and an unknown hospital environment are some sources of anxiety for family members. Special assessments and interventions for families are needed because anxiety can interfere with the family's ability to receive and understand information, maintain an adequate pattern of family function, use effective coping skills, and provide positive support - to each other and patients. Families remain the most important social context to consider when determining interventions to positively influence patient outcomes. This emotional response can delay action, the results to be achieved, need more
time to complete it and can reduce patient satisfaction finally the risk of legal prosecution. Surgeons are very risky about this situation, in this unique position, is required to be able to save the lives of patients and save themselves. This paper will discuss cases of pediatric surgical emergencies, how to deal with and how to communicate to the patient’s family.

Keywords: manage, paediatric surgery, communication

Advanced management of thoracic empyema

Susan Hendriarini Mety
Thoracic Surgery Department, Persahabatan Hospital, National Respiratory Referral Hospital

Thoracic empyema is one of several types of thoracic infections that is still common in Indonesia. It affects children and adults, with vary clinical course, and it can cause by Tuberculosis infection or other microorganisms. The basic principles of the treatment of empyema; drainage of the pleural space, effective antimicrobial, and obliteration of the empyema space, are still relevant until now. Wide range of surgical interventions, from the simple pleural aspiration to the major surgery such as thoracoplasty are needed in the treatment of thoracic empyema. During the last decade there are no major changes in the surgical technique for thoracic empyema, except the advancement of minimally invasive surgery by means of Video Assisted Thoracoscopic Surgery (VATS). The
pathophysiology and the clinical course of thoracic empyema divide the disease into three stages; exudative phase, fibrinopurulent phase, and organization phase. The choice of surgical intervention is depending on the stage of the empyema. At the early stage, pleural drainage is sufficient to remove the fluid and allows re-expansion of the lung. At more advanced stage, where there is pleural peel covered the lung, decortication by open thoracotomy or VATS is needed to re-expand the lung. When the pleural peel is too thick, the empyema is chronic, and the lung parenchyma seen on the CT is destroyed, then we cannot expect the lung to be re-expanded. The collapse therapy is obliteration of the pleural space by filling the space with pedicle muscle flap (muscle plombage), detachment of the intercostal muscles (air plombage), or thoracoplasty, the most radical procedure of collapse therapy by resecting the ribs as many as possible to collapse the thoracic cage. The indications, timing, and surgical techniques of surgical interventions as a part of the advanced management of thoracic empyema will be emphasized in the presentation. 

**Keywords:** thoracic empyema, thoracic infection, pleural drainage, decortication, thoracoplasty.

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**No incidence of anal incontinence after treatment of fistula in ano with fistulotomy and marsupialization in Bunda Thamrin Hospital Medan**

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**Background:** Fistula is defined as a track lined by granulation tissue between two epithelial surfaces. In cases of fistula in ano, it is a track that connects deeply the anal canal or rectum to the skin around the anus. The primary opening is deep in the anal canal or rectum and the superficial openings, which may be multiple, are around the perianal skin. The most common presentation of fistula in ano is a purulent discharge around the anus and from within the anal canal, associated with impaired anal hygiene and soiling. The other presenting symptoms may be pain, swelling, bleeding and skin excoriation. The patient usually gives a past history of anorectal abscess that has either discharged spontaneously or has required formal surgical incision and drainage. 

**Methods:** This study has been conducted in department of surgery Bunda Thamrin Hospital Medan from April ‘15 to March ‘18. In all 42 patients were included of anal fistulotomy by division less than 30 % of sphincteric muscle and marsupialization this is appropriate only for simple intersphincteric and low trans sphincteric fistulae. The principle of anal fistulotomy is identification of the fistula track and its subsequent opening during above mentioned period. All 42 patients were subjected for anal fistulotomy and marsupialization surgery. The present study has been done to see incidence of simple intersphincteric and low trans sphincteric fistula along with the out come of one surgical procedure i.e. anal fistulotomy and marsupialization in terms of post operative pain, duration of wound healing, infection, anal incontinence and recurrence. 

**Results:** Incidence of fistula in ano in Bunda Thamrin Hospital Medan male: female ratio was 7 : 1. Patients age group belong to 21 yr to 55yr, postoperative pain remained for 3 - 5 days, duration wounds healing 2 – 3 weeks. No patient had anal incontinence and recurrence. 

**Conclusion:** Incidence of anal incontinence after treatment of simple intersphincteric and low trans sphincteric fistulae in ano with anal fistulotomy by division less than 30 % of sphincteric muscle and marsupialization in our study is one of the ideal surgical procedure, no patient had anal incontinence. 

**Keywords:** simple intersphincteric and low trans sphincteric fistula, anal fistulotomy, marsupialization

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**Cranietomy experience in peripheral hospital (Type C)**

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Head injuries constitute 50% of the causes of death due to trauma and 70% of deaths from traffic accidents. Trauma events often occur in areas that are moved with limited medical facilities. CT scans are the gold standard for diagnosing head injuries, but are rarely found in peripheral areas. Emergency surgical treatment should be carried out in patients with intracranial hemorrhage even without CT scans. Temporal burrhole is the preferred surgical procedure and can be enlarged by cranietomy. Case 1. An 18-year-old man was hospitalized with a decrease in consciousness due to falling from a height of 4 meters. GCS E1 V2 M4, anisocorous pupil, dilated on the right side, left extremity hemiparesis. Results of cranietomy There is an extradural hematoma. Case 2. A 14-year-old man is admitted to the hospital with a decrease in consciousness. GCS E1 V1 M4. History of trauma due to earthquake liquefaction in Jono Oge Palu 11 days before being admitted to hospital. 40o C fever, anisocorous pupil, dilated on the right side, left hemiparesis extremity. Cranietomy is needed as subdural empyema. 

**Keywords:** Cranietomy, Peripheral Hospital
Multiple Trauma, Infection-Sepsis, Actute Care Surgery

**Characteristic of abdominal blunt trauma patients who performed surgery at Hasan Sadikin General Hospital Bandung in period 1st January 2016 to 31st December 2018**

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Digestive Surgery Division, General Surgery Department, Medical Faculty Padjadjaran University/ Hasan Sadikin General Hospital Bandung

**Background:** Abdominal blunt trauma is ranked the 3rd largest in the world which causes morbidity and mortality. The common cause is traffic accidents, falls, and hits. Diagnosis and proper management are important in reducing death. More than one-third of abdominal trauma patients who require emergency surgery (emergency laparotomy) initially have blurred sign and symptom. To find out the characteristics of abdominal blunt trauma patients who performed surgery at Hasan Sadikin General Hospital Bandung in period 1st January 2016 until 31st December 2018.

**Methods:** Data was taken from the medical records in period 1st January 2016 until 31st December 2018.

**Results:** 92 medical record data of patients with abdominal blunt trauma who performed the surgery. 79 patients (86%) are men, 44 patients (48%) at the age of 17 - 25 years, 55 patients (60%) caused by 2-wheeled vehicle accidents, and the most organs were liver, which was 22 patients (24%). 58 patients (63%) peritonitis condition were performed immediate surgery. 40 patients (43%) were treated in hospital during 15 - 21 days.

**Conclusion:** Abdominal blunt trauma most common occur in men, caused by motor vehicle accidents, with injured organ is the liver. Peritonitis is the most common reason of surgery.

**Keywords:** Abdominal blunt trauma, emergency laparotomy, surgery, peritonitis.

Laryngotracheal trauma management in rural hospital: a case report

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2 Department of Surgery, Ekapata General Hospital, West Sumba, East Nusa Tenggara, Indonesia

**Introduction:** Laryngotracheal trauma is a rare but potentially life-threatening injury. It is usually seen in multiple-trauma patients and can go unrecognized and undertreated due to its scarcity. Therefore often missed due to their infrequency and resultant low clinical suspicion. It accounts for only 1 in every 30,000 emergency room visits in the United States. It is the second most common cause of death in patients with head and neck trauma after intracranial injury.

**Case:** We report a 17 years old male with laryngotraheal trauma caused by motor vehicle accident. Fractured anterior thyroid cartilage and cricoid cartilage. This patient came to the emergency room with hoarseness and crowded after his neck was hit by the motor handlebar. On physical examination, we found swelling and crepitation in the anterior of the neck. This patient was intubated in the emergency room after primary survey. The surgeon performs emergency operation to repair the thyroid and cricoid cartilage and tracheostomy.

**Conclusion:** Laryngotracheal trauma should be recognized by emergency room physicians. Early diagnosis and management may present unnecessary complication.

**Keywords:** Laryngotracheal trauma, laryng fracture, surgery, management.

Concomitant injuries in maxillofacial fractures in Dr. Sutomo General Hospital Surabaya 2015 -2016

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**Background:** Maxillofacial fractures were caused most by traffic accidents. Incidence in Dr Sutomo Hospital 2001 - 2005, Reksoprawiro found 82.4 % by traffic accidents and concomitant injuries in maxillofacial fractures 64.38%, which concomitant with head injury until 55.4%. The incidence maxillofacial fractures in 2007-2013 were still the most due to traffic accidents, especially motorcycles. The study aims to know about concomitant trauma in maxillofacial fractures.

**Method:** Observational descriptive of maxillofacial fracture patients in Head and Neck Division of Surgery Department Dr. Sutomo General Hospital in 2015 - 2016

**Result:** Distribution of maxillofacial fracture patients in 2015 - 2016 based on sex, data on male patients was 77.52%. In 2015 male compared to female 70.5%, increased in 2016 male compared to female 83.82%. The side of fracture found midface fracture is 48%, lower face 30.2% and combination mid and lower face 21.7%. Data on maxillofacial trauma with concomitant trauma were 46.5%. Concomitant trauma in 2015 was 36.06% and in 2016 as many as 55.88% where there was an increase in cases of concomitant trauma. In 2015 - 2016 there were 63.63% brain injuries, while in 2015 there were 42.1% brain injuries, where the trauma outside the brain injury also increased.

**Conclusion:** Incidence of concomitant injuries in maxillofacial fractures is 46.5 %, and head injury found 50 in concomitant injuries. The cause of traffic accidents were motorcycles.

**Keywords:** Concomitant injuries, maxillofacial fractures.
Management of penetrating injury involving multiple body regions in Jombang Regency Public Hospital: a case report

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Introduction: Penetrating injury need early medical assessment and proper management, this can be done in type B hospital. We try to describe our case of penetrating injury in Jombang Regency Public Hospital.

Case Report: Twenty-two years old male came to emergency ward Jombang district public hospital after fell from 4 meters height in construction project. We found 12 mm metallic foreign body stabbed from right groin projected to left anterior axillary line ICS 4, patient was hemodynamically stable without any signs of peritonitis. External genital examination revealed bloody urethral discharge. We performed chest X-Ray, FAST examination, prone and lateral KUB X-Ray, urethrography and emergency exploratory laparotomy for foreign body extraction.

Conclusion: Penetration injury management involved supportive and surgical management to damaged structure and foreign body extraction. There is a recommendation in penetrating injury to let the foreign body not to be manipulated until enough exposure to the wound, since the foreign body can create a tamponade effect to prevent further bleeding.

Keywords: Management, penetrating injury, management.

Chilaiditi syndrome: a case series and systematic review

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Introduction: Chilaiditi’s syndrome, temporary or permanent interposition of the colon in the hepato-diaphragmatic space, could be presented with various symptoms.

Case: We reported two cases of Chilaiditi syndrome with the different chief of complaint when admitted to the hospital. A 35-year-old woman with epigastric pain and a 67-year-old man with shortness of breath. Physical examination was not specific for both patients. However, plain radiograph showed an elevated right hemidiaphragm and the presence of subphrenic air, making the diagnosis of Chilaiditi syndrome. Both patients were managed conservatively with plain radiograph showing an elevated right hemidiaphragm and presence of subphrenic air.

Conclusion: Chilaiditi syndrome can be presented with various symptoms. Radiological evidence should be obtained for the confirmed diagnosis, and conservative management was the modality choice.

Keywords: Chilaiditi syndrome, radiology, conservative.

Lateral pelvic lymph node dissection for colorectal cancer at Prof. Dr. R. D. Kandou Hospital, Manado, North Sulawesi

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Background: Colorectal cancer (CRC) is the third most common cancer diagnosis. There are 1,849,518 (10.2% of diagnoses) new cases of CRC, resulting in about 880,792 (9.2%) deaths in 2018. The standard procedure for advanced lower rectal cancer in Japan is mesorectal excision with lateral pelvic lymph node dissection (LPLND). In Europe and North America, currently multidisciplinary therapy combining mesorectal excision with preoperative chemoradiotherapy is the standard treatment. The study aims to describe CRC patients that undergo tumor resection with LPLND procedure at Prof. Dr. R. D. Kandou Hospital in Manado.

Methods: Data were collected from the Digestive Surgery department at Prof. Dr. R. D. Kandou Hospital in Manado from November 2018 until April 2019.

Results: There were 20 cases of CRC patients in November 2018 until April 2019, 12 men and 8 women. The most common found in 51-60 years old (8 patients). There are 6 patients that received tumor resection with LPLND procedure. Average duration of operation 406 minutes for tumor resection with LPLND and 218 minutes for tumor resection procedure. Average length of stay at hospital is 16 days for tumor resection with LPLND procedure and 15 days for tumor resection procedure. From the histopathological examination, we found an average 5-6 lymph nodes metastasis.

Conclusions: Using LPLND we can see the lymphatic spread of rectal cancer, this procedure hopefully can be used to reduce postoperative recurrence. The disadvantage of this procedure is longer operating time and longer length of stay at hospital.

Keyword: Colorectal Cancer, LPLND, Manado

A patient with ulcerative colitis causing bowel perforation and small bowel adenocarcinoma: a case report

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Background: Ulcerative colitis (UC) is one of the two major types of inflammatory bowel disease, along with Crohn disease. UC is characterized by recurring episodes of inflammation limited to the mucosal layer of the colon. In patients with UC, chronic inflammation is a major risk factor for the development of gastrointestinal malignancies, including colorectal cancer, small bowel adenocarcinoma, intestinal lymphoma, anal cancer, and cholangiocarcinoma. Toxic dilatation of the colon is one of the rare complications of UC and it is well recognized that if it is not effectively treated it may go on to perforation.

Case: A 41 years old male came to our hospital with complaints of pain in the right side of his abdomen, inability to fart, fever, and generalized weakness, without any previous history of illnesses. Further examination revealed colon...
Obstructive ileus on congenital trans-mesenteric internal hernia in adult: a rare case

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Background: Internal hernia is protrusion of intra-abdominal organs through normal and abnormal fossa of the abdominal cavity. There are two forms etiopathology of internal hernia, acquired and congenital. Congenital internal hernias are rare cause of small bowel obstruction. The majority occurs in children and usually does not detected until they experience signs of strangulation. Delayed treatment can cause various complications and death.

Case: A 19-year-old woman presented with pain in the entire abdomen for 4 days, accompanied by bloating, nausea, vomiting. Patient did not fart and defecated since 3 days ago. Vital signs were tachycardia and tachypnea. On abdominal examination, it appears distended, decreased and weak bowel sounds detected, tense during palpation, and there is tenderness throughout the abdominal area. The rectal ampulla is collapsed when the rectal toucher is performed in which a 25 cm loop of the ileum was inserted into and entangled with a mesenteric defect 2x2 cm in diameter. The hernia ring was cut, the ileum entrapment is released, and closed the defect. There is no bowel resection in this case.

Conclusion: Although internal hernia is a very rare case, it can be considered as a differential diagnosis in cases of obstructed ileus.

Keywords: Congenital, internal hernia, trans-mesenteric, obstruction ileus.

Delayed treatment can cause various complications and death.

A new procedure performed in adenocarcinoma rectal patient: anterior perineal plan-e for ultra-low anterior resection of the rectum (the APPEAR technique): a case report

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Background: Adenocarcinoma of the colon is the most common histopathological type of colorectal cancer. In Indonesia, the incidence of colorectal cancer is 12.8 in 100.000 population, and mortality rate is 9.5% in all cancer cases. Sphincter preserving operations are now commonplace for both benign and malignant rectal pathology, a development facilitated by the advent of circular stapling instruments.

Case: A 59 year-old-man came to our department with history of bloody stool for 6 months before admission. He had noticed fresh blood mixed with his stools and progressive weight loss. Colonoscopy demonstrated tumor in the lower rectum. On histopathology examination revealed well-differentiated rectal adenocarcinoma.

A 28-year-old overweight male presented with 3-day history of persistent purulent umbilical discharge with remittent fever a few days before, constant abdominal tenderness with edema and erythema around navel area. He was given oral antibiotics which showed no improvement. There were no other GIT-related symptoms. Upon surgery we examined deep umbilical cavity without any external material. Granuloma result with numerous keratin fragments - known as lint-debris - and no external material.

Conclusion: An impacted and infected self-foreign-body may be a cause of omphalitis in adults and could lead to a serious, wide-spread infection if left untreated.

Keywords: lint, omphalitis, umbilical discharge

Perforation in the second part of duodenum: case report

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Background: Perforation in the second part of duodenum is very rare. The diagnosis often misleading because of the unusual clinical signs and symptoms even the appropriate surgical management varies between each etiology.

Case Presentation: Here we present a case of perforation in the second part of the duodenum which has unknown etiology. Damage control surgery was performed successfully using an insertion of a T-tube.

Conclusion: Perforation of the second part of the duodenal segment is very rare and the cause of the perforation of this patient is unclear, thus making a definite treatment a challenge in which there are no standardized guidelines for each etiology.

Keywords: Duodenal Perforation, Descending Duodenum, Peritonitis

Self-foreign body omphalitis in adult: a case report

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Background: Severe omphalitis in adults is rare and can be caused by both congenital and acquired etiologies. We are reporting an impacted self-foreign-body in omphalitis case induced by accumulated keratin fragments.

Case: A 28-year-old overweight male presented with 3-day history of persistent purulent umbilical discharge with remittent fever a few days before, constant abdominal tenderness with edema and erythema around navel area. He was given oral antibiotics which showed no improvement. There were no other GIT-related symptoms. Upon surgery we examined deep umbilical cavity without any external material. Granuloma result with numerous keratin fragments - known as lint-debris - and no external material.

Conclusion: An impacted and infected self-foreign-body may be a cause of omphalitis in adults and could lead to a serious, wide-spread infection if left untreated.

Keywords: lint, omphalitis, umbilical discharge

dilatation with sign of perforation (pneumoperitoneum). During surgical hemicolectomy, the surgeon observed a single small mass on the surface of the jejunum and cut it. Pathological examination of the colon revealed the existence of UC, while the small mass was examined as a well-differentiated adenocarcinoma.

Conclusion: We reported a 41 years old male, with a previously unknown UC, that presented with toxic megacolon with multiple (3) perforations. Incidentally, we discovered the existence of a small bowel adenocarcinoma, which is probably caused by UC.

Keywords: Ulcerative colitis, Toxic megacolon, Perforation, Small bowel adenocarcinoma.
ABSTRACT

A rare case series of adult intussusception in rural area: challenge in diagnosing and management update

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Background: Adult intussusception is a rare condition representing in 1–5% of cases. Adults do not always present with the typical symptoms otherwise found in young children, making clinical diagnosis more difficult. Also, there have been updates in management of adult intussusception.

Case: We report 2 cases of adult intussusception with different clinical symptoms and leading point. Case 1, 53 years old man with a main clinical feature of progressing intermittent abdominal pain and no sign of obstruction and case 2, 35 years old woman presenting bowel obstruction. In both patients, laparotomy confirmed the diagnosis of ileoileal and ileocolic intussusception. Pathological finding was chronic colitis with A. Lumbricoides infestation and intact polypoid lesion of cavernous haemangioma in caecum. Both patients underwent resection without prior reduction and anastomosis. Early feeding was given 24-hour post-surgery with good tolerance and was sent home after 5 days of hospitalization.

Conclusion: Adult intussusception is a rare condition with non-specific clinical symptoms. Surgery is the definitive treatment and reduction of intussuscepted bowel is considered safe for benign lesions in order to avoid the short bowel syndrome. Early feeding postoperatively is considered safe.

Keywords: Adult intussusception, Bowel Obstruction, Haemangioma of intestine

Epidemiology and clinical profile of appendicitis patient in H. M. Rabain Hospital, Muara Enim, South Sumatera, Indonesia

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Background: Acute appendicitis is one of the most common acute abdomen diseases. Morbidity and mortality increased when complications occur. The most severe complication is perforation which can cause peritonitis and sepsis. So it needs to be known as early as possible to prevent deterioration. This study aims to determine the predictor factors of perforation in appendicitis.

Method: This study was retrospective cross sectional design using secondary data from medical records of appendicitis patients treated at Aricanti Hospital, Gianyar in 2018. Total samples are 96 and they were selected by consecutive technique sampling. Data about age, sex, total leukocyte Count (TLC), and symptoms duration of appendicitis patients were collected and analyzed using the Chi-square test.

Result: From 96 samples, 33 (34.4%) were perforated appendicitis and 63 (65.6%) were acute appendicitis. Chi-square test results showed that the predictor factors associated with perforated appendicitis were age under 10 and above 49 years (PR = 2.0; X^2 = 8.800; p < 0.05), TLC more than 18000/mm^3 (PR = 3.3; X^2 = 20.862; p < 0.05) and symptoms duration above 24 hours (PR = 4.1; X^2 = 24.834; p < 0.05).

Conclusion: age, sex, TLC, and symptoms duration can be used as predictors for perforated appendicitis. These predictor factors should be evaluated in appendicitis patients to prevent the occurrence of perforation or to provide immediate treatment in cases of perforation.

Keywords: appendicitis, perforation, predictor factor

Diffuse peritonitis with comorbid factors: a case report

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Background: Diffuse peritonitis caused by perforated appendicitis is one of the commonest emergency cases encountered by surgeons. The patient-related factors such as atypical presentation, clinical status and comorbidities are the most common situation. They can alter the presence of appendicitis and make the therapy gets delayed.
Neuroendocrine tumors of the colon: serial case reports

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Background: Neuroendocrine tumors (NETs) are a group of very rare and heterogeneous. NETs are characterized histologically with endocrine tissue intracellular marker, like chromogranin. These tumors can occur everywhere in body, but the most common site is in gastrointestinal tract which commonly called carcinoid tumor.

Case: We had 2 patients with neuroendocrine carcinoma presenting to our hospital. One came with clinically diagnosed as peritonitis and the other one was diagnosed with intestinal obstruction. Both patients were operated.

Conclusion: GEP-NET is relatively rare neoplasms of the gastrointestinal tract with variable clinical presentation, morbidity, and mortality dependent on tumor location, metastatic potential, and functional biologic status. Staging and classification systems for GEP-NET are likely to continue to evolve along with further development of tumor-directed diagnostic and therapeutic modalities as our understanding of GEP-NET continues to expand over time.

Keywords: neuroendocrine, carcinoid, gastrointestinal, tumors.

Tuberculous peritonitis: a case report

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Background: Secondary tuberculous peritonitis occurs following to contamination of the peritoneal cavity due to perforation or severe inflammation and infection of an intraabdominal organ by M. tuberculosis. The involvement of the biliary tree and gallbladder by tuberculosis is rarely observed and its annual incidence is estimated to be 0.1%. Furthermore, there is no current data available on tuberculous gallbladder in Indonesia.

Case: A 67-year-old woman presented to our institution with complaints of diffuse abdominal pain for about two weeks before admission. This symptom was accompanied by fever and nausea. Abdomen was doughy and distended with almost fluctuant sensation. Laboratory tests showed anemia. During laparotomy, we revealed multiple gallbladder stones and tubercles over the gallbladder wall. The overall result of the pathology anatomy proved chronic cholecystitis caused by tuberculosis. Treatment was continued with antibiotics, analgetics IV and a multi-drug protocol: rifampicin, isoniazid, pyrazinamide, and ethambutol.

Conclusion: Diagnosing this condition in tuberculous peritonitis is difficult, given the subacute nature of the disease and its nonspecific and variable complaints. The biopsy in our patient successfully proved the diagnosis and the patient undergone uncomplicated procedure in our facility.

Keywords: peritonitis, tuberculosis, cholelithiasis.

Laparoscopic management of appendicular mass: a case report

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Background: Laparoscopic appendectomy is becoming the preferred technique for treating acute appendicitis. Although laparoscopic appendectomies (LAs) are performed universally, a controversy still exists whether the LA is an appropriate surgical approach to complicated appendicitis (CA). This case report...
ABSTRACT

was author experience in treating complicated appendicitis with laparoscopic for appendicular mass.

Case: A 58 years old male, Balinese, was presented with abdominal pain for 2 weeks. His abdominal examination revealed a right lower quadrant tenderness and a round mobile palpable mass in the right lower quadrant. The patient underwent abdominal ultrasound revealed periappendicular infiltrate with intraluminal mass. Intraoperative finding was gangrenous appendix covered with omentum, with adhesion to adjacent structure. The adhesion was released gently with laparoscopic, followed by omentectomy, and appendectomy with laparoscopic. The findings suggest that laparoscopic appendectomy is feasible in patients with appendicular mass.

Conclusion: Our experience demonstrated that treatment of complicated appendicitis laparoscopically is feasible, safe and can offer a low incidence of infectious complications, less post-operative pain, rapid recovery and better cosmesis on the expense of longer operating time than OA

Keywords: laparoscopic, complicated appendicectomy, intraabdominal mass.

Gall bladder perforation: serial case

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Background: The main cause of gall bladder perforation is cholecystitis with or without gall bladder stones. It has been reported that 2-18% of patients with cholecystitis. Cholecystitis is an acute inflammation on ductus cystic and caused gall bladder distention. The cause of cholecystitis has been found on about 10% of population, about 90% of cases related to the gall bladder stones.

Case: The study was used serial case study on 3 (three) cases of gall bladder perforation patients that conduct the laparotomy cholecystectomy action. The first patient is female 67 years old with generalized peritonitis with the cause of gall bladder perforation on the part of corpus with the diameter of 1 cm. The second patient is male 42 years old with generalized peritonitis with the cause of gall bladder perforation with the size of 5 x 3 cm on the part of corpus to fundus.

The third patients are female 77 years old with generalized peritonitis with the cause of gall bladder perforation on the part of corpus with the diameter of 1 cm. The second patient is male 42 years old with generalized peritonitis with the cause of gall bladder perforation with the size of 5 x 3 cm on the part of corpus to fundus.

The third patients are female 77 years old with generalized peritonitis with the cause of gall bladder perforation on the part of corpus with the diameter of 1 cm. The second patient is male 42 years old with generalized peritonitis with the cause of gall bladder perforation with the size of 5 x 3 cm on the part of corpus to fundus.

Conclusion: To decrease the morbidity and mortality related to the gall bladder perforation, so the initial diagnosis and operative intervention are important main treatment. In the gall bladder perforation should be considering the differential of diagnosis in older patient with peritonitis with unclear etiology.

Keywords: perforation, gall bladder, surgery.

Internal hernia: a case report

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Introduction: They are cause of small intestinal obstruction. If they are untreated well can lead to morbidity and mortality. Clinical presentation of internal hernia is nonspecific. Moreover, interpretation of imaging features is operator dependent. Therefore, internal hernias are usually detected at laparotomy operation and preoperative diagnosis is either difficult or most of the time not suspected.

Case: We report a case of an 86-year-old woman who presented with acute intestinal obstruction which was later lead to a very rare type of internal hernia on exploratory laparotomy. A loop of ileum was found enter the retroperitoneum through a hernia gate which was located lateral to the caecal and posterior of ascendant colon. The segment of intestine was reduced and the hernia defect was closed. This finding represents a rare variant of retroperitoneal hernias.

Conclusion: Internal hernias are a rare but important cause of intestinal obstruction. Since physical examination findings are nonspecific, a high index of clinical suspicion along with urgent CT is suggested to aid in the preoperative diagnosis of internal hernia. Early surgical intervention is crucial to avert the high risk of associated morbidity and mortality.

Keywords: internal hernia, surgery, management.

Management of recurrent gastric giant gastrointestinal stromal tumor complicated with high intestinal obstruction: a case report

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Background: Gastrointestinal Stromal Tumor (GIST) represent 85% of all mesenchymal neoplasm occurring in the gastrointestinal tract. GIST may vary in size, from small lesions to large masses. GIST are generally asymptomatic until it reaches a significant size, therefore usually GIST was diagnosed incidentally.

Case Report: A 41 years-old male was admitted to the Surgical Emergency Department with chief complain of vomiting for 1 week before admission. The patient had history of an abdominal tumor, and surgical resection was done a year ago, with PA examination resulted in GIST with positive CD 117. After the operation, the patient never came to the hospital for follow-up, since he felt better already. The patient also complained of persistent epigastric pain and a palpable mass in the same region. Clinical examination revealed a palpable mass extending from the epigastrium into the left hypochondrium, measuring approximately 40 cm in size. Abdominal computed tomography showed a mass measuring 47× 30 x 20 cm, extending from the posterior gastric wall to the spleen and enveloping the body and tail of the pancreas. The patient underwent en-block mass resection, sleeve resection of the gaster, and distal pancreatectomy-splenectomy. Histopathology examination of the resected specimen was consistent with gastrointestinal stromal tumor of the stomach (positive CD 117) with high malignancy risk (mitotic count >5/50 high-power field andKi67/Mib1>10%). Postoperative period was uneventful, and imatinib mesylate therapy was started immediately after surgery. No recurrence was noted in one year after surgery.

Conclusion: Gastro GIST was uncommon. Curative surgical resection in recurrent GIST was possible. Combination of surgical resection and imatinib may provide optimal therapy without recurrence in the long term. R0 resection was
ABSTRACT

Laparoscopic common bile duct exploration in Prof Dr. R. D. Kandou 2017-2019

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Background: Laparoscopic common bile duct exploration (LCBDE) is a cost-effective and minimally invasive procedure to treat the common bile duct obstruction, yet in some studies particularly in a larger scale of studies show that LCBDE converted to open due to the presence of multiple stone and difficulties of identification of Calot triangle. The learning curve of LCBDE increased as the surgeon experienced more cases. This study aims to describe LCBDE surgery in Prof. Dr. R. D. Kandou based on characteristics of gender, types of operation technique, size of gallstone, length of operation, and length of postoperative hospital stay.

Method: This study is retrospective study of patients underwent LCBDE surgery from 2017-2019 in Division of Digestive Surgery, Surgery Department of RSUP Prof. Dr. R.D. Kandou Manado.

Result: Twenty nine eligible patients, 14 Female patients (48.3%) and 15 male patient (51.7%). All gallstones were surgically removable, 25 patients surgically removed by LCBDE procedure and 4 patients required conversion to open Common Bile Duct Exploration (13.7%) merely because or intraoperative encounter of some difficulties and the consideration of operation length of time needed and 5 patients (17.2%) had T-Tube insertion as a surgeon preference. 7 patients (33.3%) distributed in the largest group of gallstone size 12 mm. The mean operative time was 341 minutes (range, 165-728 minutes). The median length of postoperative hospital stay was 5 days without any mortality case postoperatively.

Conclusion: LCBDE is minimally invasive surgery which is safe and effective technique and can be a gold standard for gallstone treatment. As learning curve of LCBDE increased, surgeon confidence was improved. LCBDE requires longer period of operation time, yet reduce length of postoperative hospital stay, ineffective way to reduce the cost, morbidity and mortality.

Keyword: laparoscopic, gallstone, T-Tube, open conversation.

Laparoscopic transabdominal preperitoneal hernia repair: a case series in 3 years experience

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Background: The laparoscopic of herniotomy has known to reduction of postoperative pain, decreased hospitalization, earlier resumption of normal activity, improved cosmesis, and lessened metabolic derangement.

Laparoscopic transabdominal preperitoneal (TAPP) hernia repair is one of procedure in laparoscopic of herniotomy. The study aims to document the incidence of laparoscopic TAPP hernia repair in Prof. Dr. R.D Kandou General Hospital in 3 years.

Method: Data were collected prospectively from all patients undergoing laparoscopic TAPP hernia repair in Prof. Dr. R.D Kandou General Hospital from January 2016 to December 2018. The data consisted of sex, age, hernia location, duration of operation, and length of stay at hospital after procedure.

Results: There have been 5 men (100%) who got laparoscopic TAPP hernia repair in Prof. Dr. R.D Kandou General Hospital Manado in 3 years. Three patients found in 51-60 years old (60%) with most location in unilateral hernia (80%). Average duration of operation is 201 minutes and length of stay at hospital after procedure is around 2 days. There is no complication in follow up after 1 week after procedure.

Conclusion: The laparoscopic TAPP hernia repair procedure must be considered a method of choice of all the patients presenting with inguinal hernia.

Keyword: hernia, repair, laparoscopic, surgery.

Abdominal stab wound with eversion of intestinal organ: a case report

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Introduction: Penetrating abdominal stab wounds are rare but have been increasing over the past decade. Therapeutic strategies for stabbing trauma depend on the specificity of the region of the injury. Those who are hemodynamically unstable or have eversion should undergo mandatory laparotomy.

Case: A 64 years old female patient presented at the Emergency Department, 6 hours before admission she got an abdominal stab wound, after slumped by cow. This wound results the intestinal organ evisceration. This patient has performed emergency laparotomy. In case of organ or omental eversion, the emergency laparotomy is needed.

Conclusion: Although the hemodynamic is stable in case of abdominal stab wound with intestinal eversion, the emergency laparotomy is still needed to evaluate the condition of the intraabdominal organs.

Keyword: stabs wound, evisceration, surgery, management.

Duplication cyst of pylorus: a rare case study

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Introduction: Duplicate cyst of pylorus is a rare disease, the rarest alimentary tract duplication. The patient usually presents with recurrent vomit. This condition is rarely diagnosed by conventional imaging before surgery The treatment applied is a complete surgical resection.

Case: A 11-years-old-girl was presented with history of recurrent of vomiting and epigastric pain for 2 months. The hemodynamics were stable.
We found epigastric pain in palpation and no other abnormalities. The laboratory findings are hypoalbuminemia and random high blood glucose. Esophagogastroduodenoscopy was performed and found multiple gastric ulcers and gastric outlet obstruction suspect stricture. Gastrography found pyloric wall enlargement and normal pyloric canal due to partial stenosis because of fibrosis and J-shaped gaster with hypotonic gaster. The patient was diagnosed with gastric outlet syndrome suspect stenosis with multiple gastric ulcers. During operation we found duplicate pyloric cyst. We did cyst excision and performed gastroduodenostomy. 

**Conclusion**: Duplication cyst of pylorus rarely can be diagnosed before surgery. A comprehensive approach is needed to diagnose and to treat this disease. **Keywords**: pyloric duplication cyst, gastric outlet syndrome, gastroduodenostomy.

### Foreign body in the gastrointestinal tract: a case series

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**Introduction**: The approaches for foreign body ingestion are endoscopy, observation, and surgery. In delayed cases or those where endoscopic removal cannot be applied, conservative observation is then applied.

**Case**: This was a study case about two patient, A 35-year-old male patient presented at the Department of Emergency 12 hours before admission after having swallowed a prosthetic tooth while sleeping. And a 16-year-old female patient with depression disorder swallowing hair clips and safety pin while she was putting on the headscarf 3 hours before admission. Two Patient was reported with Foreign Body in Gastrointestinal tract. Performed conservative high-fiber diet therapy and stool evaluation. After evaluation, the foreign body came out mixed with feces.

**Conclusion**: Both of cases give good prognosis and outcome with conservative therapy. Foreign bodies can be out with feces and high-fiber diet shown to play a positive role.

**Keywords**: foreign body, observation, gastrointestinal tract.

### Intra abdominal tuberculosis: a case report

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**Introduction**: Abdominal Tuberculosis (TB) usually presents with nonspecific findings and may have a similarity with gastrointestinal disorders (lymphomas and other malignancies). There is a high incidence of intestinal tuberculosis in developing countries. But intestinal TB is rare in Denpasar.

**Case**: We reported a 18 years old female with slight distention, lower abdominal pain and loss of body weight. The laboratory had no specific result. The Ultrasonography and CT scan abdomen was suspected with intra-abdominal specific process and also hepatosplenomegaly. A serous hemorrhagic ascites with a lot of papulace and necrotic caseosa from ileum to colon serosa had found in laparoscopic biopsy.

**Conclusion**: Signs and symptoms of intestinal TB are usually nonspecific. Multiple diagnostic examinations should be ordered. Anti-tubercular therapy is recommended and may lead to improved outcomes. **Keywords**: Abdominal tuberculosis, gastrointestinal disorder, chronic granulomatous inflammation

### Overview of blunt abdominal trauma patients at Hasan Sadikin Bandung General Hospital in 2017-2018

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**Introduction**: Blunt abdominal trauma accounts for 86% of all abdominal trauma. With adequate investigations, trauma to the intra-abdominal organs can be diagnosed properly and managed with appropriate treatment. This study aims to obtain an overview of blunt abdominal trauma at Hasan Sadikin General Hospital in Bandung.

**Methods**: This study was a descriptive study without analysis. Subjects were 63 patients with blunt abdominal trauma at Hasan Sadikin General Hospital Bandung in January 2017 - December 2018.

**Results**: Blunt abdominal trauma patients treated at the Hasan Sadikin General Hospital in Bandung in January 2017 - December 2018 have an age distribution of 4-70 years, with an average age of 28 ± 16.9 years. Most blunt abdominal trauma occurs in the age range under 20 years, accounts 25 (39.68%) subjects, 21-30 years were 17 (26.98%) subjects, 30-40 years were 8 (12.69%) subjects, 41-50 years were 6 (9.52%) subjects and more than 50 years were 7 (11.11%) subjects. Male blunt abdominal trauma patients were 39 (61.91%) and female patients were 42 (66.7%) subjects.

**Conclusion**: Blunt abdominal trauma occurs mostly at the age of fewer than 20 years with an average age of 28 ± 16.9 years. Blunt abdominal trauma patients are dominated by men. **Keywords**: trauma, abdominal trauma, blunt trauma, epidemiology.

### Gastroduodenal invagination with gastric adenocarcinoma as leading point: a case report

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**Background**: Adenocarcinoma is a type of tumor that is often found histologically. Gastric tumors often arise from a combination of adenocarcinoma with neuroendocrine carcinomas are very rare. We report a case of gastric adenocarcinoma were caused invagination gastroduodenal for gastrointestinal stromal tumors.

**Case**: Through case approach in 1 patient diagnosed late with early-stage gastric adenocarcinoma. The design of this study case reports using a variety
ABSTRACT

Small bowel obstruction caused by ectopic pancreas: a case report

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Introduction: Ectopic pancreas or heterotopic pancreas is defined as pancreatic tissue outside the boundaries of the pancreas that lacks anatomic or vascular continuity with the organ. The prevalence in the general population estimates ranges from 0.6% to 13.7%. We reported a case of a 27-year-old male, who presented with small bowel obstruction caused by ectopic pancreas which was found in ileum.

Case: We presented a 27-year-old male with abdominal pain, abdominal distension and vomiting 5 days before the patient admitted to the hospital. Physical examination revealed tenderness in abdominal palpation. Plain abdominal X-Ray showed small bowel obstruction. CT Scan of the abdomen showed fluid collection, intestinal wall thickening and tubular structure in the right lower abdomen. On laparotomy, a mass was identified at ileum 40 cm proximal from ileocaecal valve. A bowel resection with an end-to-end anastomose was performed. The recovery process was uneventful. The patient was discharged on postoperative day 5. Histopathology of the mass showed ectopic pancreas with ducts and acini in the ileum.

Conclusion: The preoperative diagnosis of an ectopic pancreas is still challenging despite advanced diagnostic modalities. The diagnosis can not be made clinically, and the main differential diagnosis is malignancy. The final diagnosis of ectopic pancreas in our case was made after the surgical resection was performed, and histopathology result is done.

Keywords: ectopic pancreas, heterotopic pancreas, small bowel obstruction.

Correlation between nutritional status based on subjective global assessment against postoperative outcomes in patients who underwent major abdominal surgery

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Background: Currently, SGA validation is still often done as a tool for malnutrition screening in surgery patients. Further research is required to build validity and reliability on this method through various patient populations. This study aims to find the correlation between nutritional status based on SGA against major postoperative complications and extended postoperative length of stay in patients who have undergone elective major abdominal surgery.

Methods: This research is a prospective cohort research involving 44 patients who are cared for within the research period (December 1st, 2018 – April 17th, 2019). Data processing is computerized and analyzed by chi-square with risk
estimates of each free variable against dependent variables.  

**Result:** There was no significant correlation between SGA and postoperative outcome. A significant correlation was present between ANC and major postoperative complication. Other abnormalities in nutritional status include IMT, hemoglobin, albumin, and leucocyte counts are at risk of increasing poor operative outcomes.  

**Conclusion:** SGA does not affect postoperative outcomes. ANC affects the incidence of major postoperative complications.  

**Keywords:** Nutritional status, postoperative, complication, management.

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**Laparoscopic plication for diastasis recti: a case report**

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**Introduction:** Diastasis of the rectus abdominis muscle (DRAM) is a widening of the inter-recti distance between the two bellies of the rectus abdominis muscle at the linea alba. DRAM most commonly occurs during and post pregnancy. DRAM repair is challenging for most general surgeons since guidelines on indication and methods for repair do not exist.  

**Case:** A 34-year-old Female Patient presented to hospital with complaint of abdominal discomfort and a bulging of the abdomen in the midline. The patient had a history of Gemelii pregnancy 5 years ago and underwent intense workout to lose weight due to being overweight. Under general anesthesia, A 10 mm port was placed in the suprapubic region via a modified Hassan approach and a 5 mm port was placed in each iliac fossa. Interrupted nylon horizontal mattress sutures were fixed at approximately 2 cm either side of the midline along the length of the diastasis recti. Post-operatively, the patient recovers uneventfully. Pain over the surgical site was minimal and she was discharged on day 3. One week following discharge, the patient was reviewed in outpatient clinic and reported an improvement in both appearance and symptoms.  

**Conclusion:** DRAM repair is challenging for most general surgeons since guidelines on indication and methods for repair do not exist. Laparoscopy plication for diastasis recti is very promising and have a good result.  

**Keywords:** diastasis recti, laparoscopic, surgery, plication.

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**Effect of bioabsorbable (fibrillar) and fibrin glue on the number of macrophages and fibroblasts in Wistar rats with gastric perforation compared to the omental patch method**

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**Background:** Gastric perforation covers 25-30% of acute abdomen in the ER and has high mortality and morbidity rate (Buck, 2012). WHO said that deaths from gastric perforation in Indonesia reached 0.99 percent which was obtained from the death rate of 8.41 over 100,000 citizens (WHO, 2011). Surgery is the main treatment of gastric perforation. The Omental patch commonly used to close the gastric perforation. Exploration laparotomy and omental patch remain the gold standard. As an alternative to omental patch, it has been thought of how to close the perforation without injuring the edges of the perforation so that it does not pose a risk of leakage. One method is bioabsorbable material that is glued with fibrin glue. The main problem is to found the treatment of gastric perforation, which is looking for an efficient and safe therapeutic approach. This study was conducted to determine the effect of bioabsorbable material as a seamless technique in healing gastric perforation wounds.  

**Methods:** This study was true laboratory experimental post test only control group design single blind in rat. The aim of the study was to determine the effect of bioabsorbable (fibrillar) and fibrin glue material on the number of macrophages and fibroblasts in wistar rats with gastric perforation compared to the omental patch method. The treatment group was divided into 2 randomly groups. 20 rats were divided into fibrillar and fibrin glue groups, and omental patch groups.  

**Results:** A calculation was made in both groups, the average number of fibroblasts produced by the fibrillar and fibrin glue group was 7.5 and the number of fibroblasts produced by the omental patch group was 5.4. This shows that the average number of fibroblasts produced by the fibrillar and fibrin glue group is higher than the number of fibroblasts produced by the omental patch group. In this T test (fibroblasts) there was a significance value of 0.001 so that the significance value was smaller than alpha 5% (0.001 < 0.050) indicating that there were significant differences (H1 accepted) on the number of fibroblasts produced using fibrillar and fibrin glue over the omental method patch. From the calculation of macrophage cells obtained, an average number of fibrillar and fibrin glue groups of macrophages is 4 and the omental patch group is 3. To see if there are any differences in the average sample T-test independent test. In this T test (macrophage) obtained a significance value of 0.004 so the significance value is smaller than alpha 5% (0.004 < 0.050). This shows that there is a significant difference (H1 accepted) on the amount of macrophage produced using fibrillar and fibrin glue over the omental patch method.  

**Conclusion:** From the study, it was concluded that the administration of fibrillar and fibrin biomaterials in the closure of gastric perforation increased the number of macrophage and fibroblast cells better that the omental patch method, in other way the closure of gastric perforations with fibrillar and fibrin glue biomaterials had the potential to be an alternative therapy for gastric perforation.  

**Keywords:** Bioabsorbable, Fibrin glue, Macrophages, Fibroblasts, Omental Patch

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**Pseudopapillary neoplasm of the pancreas**

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**Background:** Solid pseudopapillary tumor is a rare primary neoplasm of the pancreas that typically affects young women. In afflicts young women, with a 10:1 predominance over men, at age of 24 years. It is a relatively a benign tumor, with a favorable prognosis. Unlike the aggressive malignant behavior shown by pancreatic carcinoma, these tumors are often benign.  

**Case Description:** We here report a 19-year-old woman with solid
Comparison of a number of fibroblast and collagen density scores in ileum anastomosis with basting stitches and interrupted stitch technique (study on Rabbit New Zealand)

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Background: Intestinal anastomosis manually is carried out with the technique of continuous and simple interrupted sutures. Simple interrupted suture is now standard in intestinal anastomosis. Continuous suture has the advantage of better serosal apposition, and shorter processing time and triggers the formation of hypoxia inducible factor which can stimulate the production of VEGF and PDGF that stimulate migration and proliferation of mesenchymal cells, especially fibroblast cells which support the synthesis and increasing collagen density in anastomosis tissue. To compare the anastomosis technique with continuous and simple interrupted sutures reviewed from fibroblast count and collagen density score in rabbit intestines.

Methods: This study is an experimental study. The sample of this study consisted of 36 rabbits divided into 2 groups continuous and simple interrupted sutures. Randomization is done by permuted randomization block. The inclusion criteria in this study were Rabbits strain ocrtyologus cuniculus aged 8-9 months, weighing 2000-2500 grams, healthy and active. The independent variable in this study is the ileal anastomosis technique and the dependent variable is the number of fibroblasts and the collagen density score formed on the anastomosis tissue assessed histopathologically (PA)

Results: In the results of this study was found that the average age of rabbit was 8 months, with an average weight of 2400 grams, the group of rabbits which received continuous suture a number of fibroblasts was 10 fibroblasts / visual field with collagen score was 3, whereas in rabbits getting interrupted stitch sutures a number of fibroblasts is 8 fibroblasts / visual field with collagen score is 2. However the results of analytic testing, showed that rabbits treated with continuous suture showed that were not significantly different in fibroblast count and collagen density score compared to simple interrupted group (p> 0.05), but in continuous rabbit group have higher collagen density scores and number of fibroblasts than rabbits who get simple interrupted suture

Conclusion: This study proves that there is no significant difference between intestinal anastomoses in rabbits get continuous suture compared to those treated with simple interrupted sutures.

Keywords: intestinal anastomosis, continuous suture, simple interrupted sutures, fibroblasts, collagen

Duodenal web causes of duodenal obstruction in children: case report

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Background: duodenal web is a rare congenital disorder that causes duodenal obstruction. Based on duodenal case literature reaching 100 cases and incidents as one of the causes of intestinal obstruction of about 1: 10,000 - 1: 40,000. Duodenal web obstruction can occur totally or partially. Complaints and timing of symptoms depend on the location of the duodenal web. Therefore, duodenal web is usually found in childhood or even as an adult. This case is expected to be an illustration for dealing with Duodenal Web cases in children.

Case Description: A one years child who complains of continuous vomiting from birth, radiological examination and a picture of distension in the stomach and duodenum, air fluid levels, and air distribution normal in the distal intestinal region, which is a typical picture of Duodenal Web. The case of Duodenal Web cases is rarely found as a cause of congenital duodenal obstruction in children, complaints and timing of symptoms depends on the size and location of the duodenal web, checks that can be done are physical examinations and radiological images to establish a diagnosis.

Conclusions: Duodenal Web is a cause of duodenum obstruction that is rarely found in children but can be a differential diagnosis in pediatric patients with a history of continuous vomiting and radiological examination and physical examination can be a determinant of diagnosis, duodenostomy is management in Duodenal Web patients

Keywords: Duodenal Web, Obstruksi, Duodenum

Long term clinical outcome of gastrointestinal stromal tumor undergoing resection and adjuvant tyrosine kinase inhibitor

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Background: Gastrointestinal stromal tumor (GIST) is the most common mesenchymal tumor in the digestive tract, patients with larger tumor size and high mitotic count have a high risk of recurrence after surgery. Standard
ABSTRACT

Effect of use bovine amniotic membrane as a protesis of abdominal wall reconstruction defect reviewed the expression of platelet derived growth factor on rattus rats of Novergicus train Wistar

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Background: Abdominal wall defect is a condition that often occurs after a surgery or trauma. Large total defects of the midline often require a local or a distant flap for the abdominal wall reconstruction, plus a skin graft or tissue expansion for the skin closure. In the development of Abdominal Wall Reconstruction (AWR) techniques, biological mesh or an acellular dermal matrix (ADM) emerge, which is expected to be a solution in complicated AWR cases. One source of amniotic membranes is from bovine. Amniotic membrane is believed to contain growth factors including epidermal growth factors (EGF), platelet-derived growth factor (PDGF) and transforming growth factor beta. This study aims to evaluate the difference of platelet derived growth factor (PDGF) level in abdominal wall defects reconstructed using with or without bovine amniotic membrane.

Methods: An experimental study on Rattus norvegicus Wistar strain Rat treated with artificial abdominal wall defects, with 16 rats in treatment and control group (using with or without bovine amniotic membrane, respectively). To evaluate PDGF level used immunohistochemistry. The PDGF levels was measured subjectively by 2 pathologist separately with scoring system.

Results: Evaluation of PDGF expression examination rated from intensity and presentage from positive cell. There is no significant differences between intensity score in treatment group and control group, with score 2 from treatment group was 9 (56,3%) and 10 (62,5%) from control group, p=0,763. There is significant differences between extention score in treatment group and control group, with score 1 from treatment group was 9 (56,3%) and 2 (12,5%) from control group, p=0,005 (p<0,05). PDGF expression was obtained by multiplying the intensity score by extension and the results obtained were significantly different (p = 0.008), its mean that PDGF expression in the treatment group was higher than the control group.

Conclusion: The abdominal wall reconstruction defect using the bovine amniotic membrane can increase the expression of PDGF.

Keywords: abdominal wall reconstruction defect, bovine amniotic membrane, platelet derived growth factor expression

The effect of using dried bovine amniotic membranes as a prothesis of abdominal fascia defect closure reviewed from collagen type 1 and 3 density in Rattus Novergicus Wistar strain rat

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Background: Fascia is one of the important structures in the anterior abdominal wall. In linea alba, the abdominal wall only consists of aponeurosis without the covering of muscles so it can lead to a potential problem, should there be a defect. Collagen type 1 and 3 are important for abdominal fascia and aponeurosis, they have an important role as structures that resist the abdominal wall against intra-abdominal pressure. Dried Amniotic Membrane have many extracellular matrixes that is dominated by collagen type 1 and 3 which has the potential to improve the wound healing process. However, the use of dried bovine amniotic membranes to repair defects in the abdominal fascia has not been widely studied. This study aims to evaluate the differences in collagen type 1 and 3 density in the abdominal fascia defect which is closed using with dried bovine amniotic membrane and without dried bovine amniotic membrane.

Methods: An experimental study on Rattus norvegicus Wistar strain rats which were made defects in the abdominal fascia. With a subject of 32 rats, it was divided into 2 groups. The first group closed the defect directly with the skin flap, while the second group used dried bovine amniotic membrane. Evaluation of type 1 and 3 collagen density were assessed using the immunohistochemistry examination and assessed using Pathological Visual Collagen Density Score.

Results: In the evaluation of type 1 collagen density, scores were obtained in the control group with a score of 1 (68.8%), a score of 0 (25%), a score of 3 (6.3%). While in the treatment group was a score of 2 (50%), a score of 1 (43.8%) and a score of 0 (6.3%). Whereas in type 3 collagen density the score in the control group was score 1 (50%), score 0 (31.3%), score 2 (18.8%). While in the treatment group a score of 2 (68.8%), a score of 1 (31.3%) and a score of 0 (0%) were obtained.

Conclusion: There is an increase in the density of collagen type 1 and 3 in the abdominal fascia defect reconstructed using dried bovine amniotic membrane.

Keywords: abdominal fascia defect, dried bovine amniotic membrane, collagen type 1 density, collagen type 3 density.
A male teenager with prolapsed omentum per rectum after anal intercourse: case report

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Background: Injuries during anal intercourse can range from superficial mucosal bleeding to severe ones that can lead to rupture of rectum with peritonitis, which are usually related with foreign body insertion. Case Presentation: We report a 19-year-old male with prolapse mass from anal, who presented in our emergency department with acute abdominal pain 48 hours after anal intercourse and foreign body insertion to the anal. From laparotomy, there was fecal peritonitis from a large rectal tear in the upper third of the rectum rectal and primary repair was performed. The unique feature of this case is that the post coitus tear of the rectum caused by anal intercourse and foreign bodies insertion via anal between two homosexual adults resulted in intraperitoneal peritonitis, while the anal sphincters were left intact. Conclusion: Sexual related traumas are unique case subjects as well as the cause of embarrassment and distress to most patients. Depending on our east cultural and social etic, patients mostly delay referral to hospital, fabricate some fake stories, and hide the thorough history. Keywords: rectal perforation, anal intercourse, foreign body insertion, sexual related trauma.

Case report
Gallstone ileus due to cholecystogastric fistula: a brief report and review literature

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Background: Gallstone ileus is a rare complication of cholelithiasis accounting for 1%–4% of defined as intestinal obstruction due to impaction of one or more gallstones within the gastrointestinal tract. Cholecystogastric fistula itself is a rare fistulous tract formation, which one it results from the gradual erosion of the approximated and chronically inflamed wall of the gall bladder and stomach. Case Description: A 39-year-old female with gallstone ileus due to cholecystogastric fistula, which we manage with one stage procedure (enterolithotomy, cholecystectomy and fistula closure) and patient discharged on day 10 with good condition. Conclusion: This case report has highlighted that gallstone ileus is a rare case. Computed tomography has proven to be the most accurate diagnostic modality. And the best treatment for patients with good general condition and adequately stabilized preoperative is onestage surgical procedure (cholecystectomy and repair of fistula) Key Word: Gallstone Ileus, Cholecystogastric Fistula, One Stage Procedure

Operative vs non-operative management in grade III pancreatic injury: case series

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Background: Pancreatic injury is a rare case, caused by blunt or sharp trauma. Difficulty in making diagnose on pancreatic trauma cases are associated with high mortality, and the treatment can be either operative or conservatively. However, it is still unclear which treatment is more favorable. Case Presentation: We present 2 cases of Grade III pancreatic injury with stable hemodynamic who suffered bicycle accident. First case, 12-year-old boy complaining severe pain on the upper left abdomen (VAS 9-10) and get worsening by time, with vomiting. The patient underwent distal Pancreatectomy-Splenectomy. Second case, 8-year-old boy complaining of pain on the upper left abdomen (VAS 6-7) without extension on whole abdominal region with vomiting and fever. The patient was treated conservatively. In both cases, patient was discharged with improvement. However, about 3 months later patients who were treated conservatively developed into a pseudocyst. Conclusion: The selection of management in grade III pancreatic injury can be operative or conservative depending on clinical findings such as hemodynamic condition and the quality of abdominal pain. But the occurrence of pseudocysts pancreas is another surgical challenge. Keywords: Pancreatic trauma, Distal Pancreatectomy, Conservative, Pseudocysts.

Todani type IV A choledochal cyst: a case report

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Introduction: Choledochal cyst is a cystic dilatation of the common bile duct which is congenital and rare. The incidence of choledochal cyst is about 1:100,000 to 150,000 cases in western countries while in Japan, the incidence is 1:13,000. The triad of choledochal cyst symptoms is abdominal pain, icterus, and accumulated masses in the upper right hypochondrium. To establish a choledochal cyst diagnosis and rule out the diagnosis of hepatobiliary disease, USG, MRCP, ERCP, CT-Scan, and MRI examination needs to be performed to verify choledochal cyst diagnosis. Case: A 30-year-old woman came to M. Soewandhie General Hospital complaining about pains in the upper-right abdomen and vomiting. She had suffered from this condition for the last three months and had been treated in Sampang General Hospital, Madura twice with a diagnosis of gastritis. The result of physical examination indicated the masses in the upper right hypochondrium could not be felt; there was no sign of direct/indirect bilirubin, but the liver functioned normally. The result of USG on the abdomen showed

ABSTRACT

Hepato-Biliary-Pancreatic Surgery

Operative vs non-operative management in grade III pancreatic injury: case series

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Background: Pancreatic injury is a rare case, caused by blunt or sharp trauma. Difficulty in making diagnose on pancreatic trauma cases are associated with high mortality, and the treatment can be either operative or conservatively. However, it is still unclear which treatment is more favorable. Case Presentation: We present 2 cases of Grade III pancreatic injury with stable hemodynamic who suffered bicycle accident. First case, 12-year-old boy complaining severe pain on the upper left abdomen (VAS 9-10) and get worsening by time, with vomiting. The patient underwent distal Pancreatectomy-Splenectomy. Second case, 8-year-old boy complaining of pain on the upper left abdomen (VAS 6-7) without extension on whole abdominal region with vomiting and fever. The patient was treated conservatively. In both cases, patient was discharged with improvement. However, about 3 months later patients who were treated conservatively developed into a pseudocyst. Conclusion: The selection of management in grade III pancreatic injury can be operative or conservative depending on clinical findings such as hemodynamic condition and the quality of abdominal pain. But the occurrence of pseudocysts pancreas is another surgical challenge. Keywords: Pancreatic trauma, Distal Pancreatectomy, Conservative, Pseudocysts.

Todani type IV A choledochal cyst: a case report

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Introduction: Choledochal cyst is a cystic dilatation of the common bile duct which is congenital and rare. The incidence of choledochal cyst is about 1:100,000 to 150,000 cases in western countries while in Japan, the incidence is 1:13,000. The triad of choledochal cyst symptoms is abdominal pain, icterus, and accumulated masses in the upper right hypochondrium. To establish a choledochal cyst diagnosis and rule out the diagnosis of hepatobiliary disease, USG, MRCP, ERCP, CT-Scan, and MRI examination needs to be performed to verify choledochal cyst diagnosis. Case: A 30-year-old woman came to M. Soewandhie General Hospital complaining about pains in the upper-right abdomen and vomiting. She had suffered from this condition for the last three months and had been treated in Sampang General Hospital, Madura twice with a diagnosis of gastritis. The result of physical examination indicated the masses in the upper right hypochondrium could not be felt; there was no sign of direct/indirect bilirubin, but the liver functioned normally. The result of USG on the abdomen showed
extra-hepatic biliary cyst while MRCP indicated cyst on intra and extra-hepatic bile ducts. According to Todani classification, intra and extra-hepatic cystic lesions of bile ducts are classified as type IV A. Durante exploration of surgery found choledochal cyst that matched MRCP description, namely type IV A choledochal cyst. Cholecystectomy and cyst resection was performed followed by biliodigestive Roux en Y hepaticojejunostomy anastomosis. Post-surgery examination showed neither anastomotic leak nor icterus. Five days after the surgery, the patient was discharged. Evaluation carried out six months after the surgery indicated no complications or any associated adverse event surgery, and the result of laboratory test marked direct/indirect bilirubin and liver function were in normal condition.

**Conclusion:** Excision and cyst resection surgical interventions followed by a bilio-digestive Roux en Y anastomosis are the main alternative for choledochal cyst cases, especially type IV A. This procedure minimizes the risk of biliary malignancy which has reported of having 9-28% incidence. Although malignancy is rare, post-surgical condition needs to be continuously evaluated and followed up.

**Keywords:** Choledochal cyst, Todani, MRCP, Roux en Y hepaticojejunostomy.

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**Experience of laparoscopic common bile duct exploration in A. Wahab Sjahranie Hospital, Samarinda-Indonesia**

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**Introduction:** Laparoscopic common bile duct (CBD) exploration is a choice to extract stone, evaluate biliary tract or biopsy. We aim to report our results with this procedure, focusing on the technical aspects. Herein we describe our 3-year experience with laparoscopic common bile duct exploration (LCBDE)

**Method:** We performed LCBDE for 21 patients with CBD stone from June 2017 - April 2019. MRCP or MSCT done for diagnosis preoperatively. All CBD exploration was done by video choledoscope. Route LCBDE, duration, conversion rate, biliary tract clearance and complication will be evaluated.

**Result:** Among 21 patients, male was 8 (38.1%) and female 13 (61.9%), mean age was 44 year, in range 28 - 74 years, TC-LCBDE in 6 (28.6%) patients and C-LCBDE in 15 (71.4%) patients. Extraction CBD stone or bypass and biopsy done. The largest CBD stone was 20 mm, in range 2 - 20 mm and 1 - 6 stones extract/clearance by basket or forceps. No major complication, 1 (4.8%) was converted to open due to adhesion. Mean operative time was 215.95 minutes, in range 75 - 345 minutes. Majority cholecystectomy was done with primary closure and subhepatic drain was placed, only 1 (4.8%) with T-tube. All CBD clearance was ensured by video choledoscope. Mean postoperative length of stay was 4.76 days, in range 2 - 15 days.

**Conclusion:** LCBDE is a feasible, safe and effective procedure with low complication and higher success rate for biliary tract clearance and cholecystectomy (single stage approach). Choledoscope is a must to evaluate biliary tract and biopsy.

**Keywords:** exploration, surgery, laparoscopic.

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**Endoscopic retrograde cholangiopancreatography in Surgery**

Department of Prof. Dr. R. D. Kandou General Hospital: 2 years experiences

**HEPATOBIPLIER**

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**Background:** Endoscopic retrograde cholangiopancreatography (ERCP) is a technique that combines the use of endoscopy and fluoroscopy to diagnose and treat certain problems of the biliary or pancreatic ductal systems. This study aims to describe ERCP in Prof. Dr. R. D. Kandou General Hospital in indications, diagnosed conditions and laboratory findings

**Method:** This study is retrospective study of patients underwent ERCP from January 2017- May 2019 in Division of Digestive Surgery, Surgery Department of Prof. Dr. R. D. Kandou General Hospital, Manado, Indonesia.

**Result:** A total of 25 patients data was available, 13 males (52%) and 12 (48%) females. The highest number of patients indicated of undergoing ERCP were 18 patients (72%) because of jaundice, abdominal pain in upper right quadrant 6 patients (24%), post biliary stenting procedure 1 patient (4%). There were 13 patients (52%) diagnosed with Choledocholithiasis, 3 patient was failed to extract the stone due to difficulties in cannulation of the Ampulla of Vater. 11 patients (44%) were diagnosed with tumor and the procedure had to be stopped in 1 patient (4%) due to instrument failure. The elevated of total bilirubin and direct bilirubin were decreased after ERCP in 10 patients (40%).

**Conclusion:** ERCP can be a choice procedure to diagnose and to treat condition associated with pancreaticobiliary system and as the learning curve of ERCP experienced that can improved surgeon confidence.

**Keywords:** ERCP, jaundice, choledocholithiasis, bilirubin
Diagnostic score validity of CAVeA$_{2}$T$_{2}$ in predicting native AV forearm radio-cephalic fistulae in person with end-stage renal disease in Sanglah General Hospital

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Introduction: Chronic kidney disease is a global public health problem with increasing prevalence and incidence and poor prognosis. As a result, more patients will be in terminal stage kidney failure and require placement of vascular access for hemodialysis. Mature and functional arteriovenous fistula (AVF) is considered the best modality for access to hemodialysis. But it is estimated that about one-third of the AVF will fail to achieve functional access. This study aimed to examine CAVeA$_{2}$T$_{2}$ scores in predicting failure of arteriovenous fistula radio-cephalic, significant factors related to failure of arteriovenous fistula so that it can be used to predict failure using a scoring system to predict primary failure and secondary failure fistulae.

Methods: This study using diagnostic test evaluation method using ROC curve analysis on months 1 and 3, total 50 populations obtained using purposive sampling quota period from April 2018 to December 2018 and failure of hemodialysis as gold standard.

Results: Results of the CAVeA$_{2}$T$_{2}$ score where the maximum score of 7 was analyzed using the ROC curve, the cut-off point was obtained at month 1 ≥ 5 with AUC 0.898 and at 3 months ≥ 4 with AUC 0.396 sensitivity and specificity CAVeA$_{2}$T$_{2}$ score of 91.3% and 75% in month 1, in the 3rd month 85.7% and 87.5% were obtained.

Conclusion: Sensitivity and specificity values that provide a good value so that the CAVeA$_{2}$T$_{2}$ score can be used to predict failure of arteriovenous radio-cephalic fistulas.

Keyword: CAVeA$_{2}$T$_{2}$ Score, Arteriovenous Fistula, Fistula Failure.

Embolization is invasive action in cases of vascular injuries Prof. Dr. R. D. Kandou Manado: series case report

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Background: Embolization is an effective way to treat hemorrhagic conditions and eliminate vascular supply from mass lesions, postoperative trauma or sharp trauma to the kidneys. Embolization can be done either as a definitive treatment or in addition to subsequent surgical management. In this case, 3 cases will be reported with Embolization with different cases, and give maximum results.

Case: We reported 3 cases, men aged 25 years with left kidney laceration, 52 years with right post PCNL and 59 years with right kidney tumor, patients with the same complaint bleeding urination. Physical examination of the external urethral ostium is attached to the catheter with bleeding urine. With the results of the investigation of each case attached. Then in angiography the impression of contrast extravasation in the branch of the renal artery, then an embolization procedure with Polyphenol Alcohol (PVA) is performed and gives good results, where extravasation is absent and bleeding stops.

Conclusion: Embolization has been used as a minimally invasive treatment in Indonesia specifically in cases of vascular injury including injury to internal organs. There is a significant advantage over conventional surgery as faster postoperative recovery and fewer scars and therefore patient satisfaction is greater with results.

Keywords: Embolization, Right renal artery branch, Bloody urine.

Endovenous embolization therapy for varicose vein: a serial case

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Background: Endovenous embolization is a minimally invasive procedure used to treat varicose veins using liquid or cyanoacrylate glue. This technique can eliminate the risk of thermal nerve injury that is commonly complained of in other invasive therapies with thermal-based procedures. This study was conducted to determine the profile of endovenous embolization (vena-seal) therapy in the incidence of lower leg vein varicose.

Method: the method using retrospective study to describe the patients who have varicose veins and those treated with vena-seal in RSUP Prof. Dr. R.D Kandou in period January to March 2019. The data is collected from the patient’s medical record and we found 5 patients with vena-seal treatment.

Results: 60% of subjects had a family history of venous varicose veins. According to the CEAP criteria, there were 60% patients with grade C1 and 2, 40% patients grade 4 treated with vent seal. In the subject, diameter of the saphena femoral junction (SFJ) ranges from 8 mm to 15 mm in the presence of reflux in the SFJ. In evaluation for 2 weeks post-operation, there is found extravasation in the branch of the renal artery, then an embolization procedure with Polyphenol Alcohol (PVA) is performed and gives good results, where extravasation is absent and bleeding stops.

Conclusion: Embolization has been used as a minimally invasive treatment in Indonesia specifically in cases of vascular injury including injury to internal organs. There is a significant advantage over conventional surgery as faster postoperative recovery and fewer scars and therefore patient satisfaction is greater with results.

Keywords: Embolization, Right renal artery branch, Bloody urine.

Characteristics of pseudo-aneurysm in chronic kidney disease patients at Hasan Sadikin Hospital 2014-2019

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Background: Chronic kidney disease (CKD) is associated with tremendous
economic burden. Data in Indonesia shows the number of patient with CKD patients taking hemodialysis as a routine procedure is increasing every year, reaching 30,381 people in 2017. Complications that often arise due to HD are the formation of pseudo-aneurysms. Pseudo-aneurysms can appear at the location of the AV fistula or at the location of needle puncture. This study aimed to describe the characteristics of pseudo-aneurysms as a form of complication from hemodialysis procedure in patients with CKD.

**Method:** This study was a cross-sectional study using retrospective data from medical records of patients with pseudo-aneurysms in patients with CKD at Hasan Sadikin Hospital Bandung, West Java from June 2014 to May 2019.

**Results:** There were 79 cases of pseudo-aneurysm taken in this study. There were 45 female patients (57%) and 34 male patients (43%). The youngest patient is 16 years old and the oldest is 73 years old, with an average age of 46.2 years. The patients chief complaint was appearance of “a lump” (67/84.8%), followed by pain (58/73.4%), and bleeding from the vascular access (38/48.1%). The most frequent location of pseudo-aneurysms was in the left upper limb (44/55.7%), left femoral (14/17.7%), right femoral (11/13.9%), right upper limb (8/10.2%), and on the neck (2/2.5%).

**Conclusions:** Pseudo-aneurysm is a complication from needle cannulation and the most common sign complained by patients is the formation of lump accompanied by pain in the puncture site.

**Keywords:** Arteriovenous Fistula, chronic kidney disease, pseudoaneurysm.

Effect of hyperbaric oxygen therapy on type 2 diabetic foot ulcer based on PEDIS score

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**Background:** Diabetic foot ulcer (DFU) is a health problem related to the extended amount of time in wound healing process hence increasing the treatment costs. Given any methods that aren’t satisfying, encourage the search of methods that would increase the wound healing rate, in which the hyperbaric oxygen therapy (HBOT) was amongst them. The DFU that receives HBOT shows a significant increase in angiogenesis process markedly by faster epithelialization and granulation process. This study aims to prove that HBOT could accelerate the wound healing process on DFU patients measured by wound size and depth of PEDIS score.

**Methods:** This research was conducted at Surgery Department, Prof. Dr. R.D. Kandou General Hospital and Siloam Hospital Manado on September 2018 to March 2019. A randomized controlled trial divides 20 DFU patients into 2 groups, each consist of 10 patients. The control group received a holistic treatment but without HBOT meanwhile the HBOT group also received comprehensive treatment but with the inclusion of HBOT. PEDIS score assessments on DFU in HBOT group was measured before and after the third HBOT session, meanwhile the control group was measured on the first and the third day.

**Results:** The differences in PEDIS score values were markedly found in HBOT (3.9 ± 1.1) compared to control group (4.9 ± 1.3) (p<0.001).

**Conclusion:** HBOT enhanced the wound healing process on DFU patients based on declining of the PEDIS score.

**Keywords:** HBOT, PEDIS score, diabetic foot ulcer.

The effect of hyaluronic acid on the changes in matrix metalloproteinase-1 (MMP-1), leukocytes level, and bacteriocide effects among patients with Wagner 3 and 4 diabetic foot ulcer

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**Background:** Diabetes Mellitus (DM) has become a major public health problem. An important complication of Diabetes Mellitus is the emergence of diabetic foot ulcers that require special treatment in healing. Hyaluronic Acid plays a role in cell proliferation and cell movement and is needed in the process of wound healing. The main goal of treatment of diabetic ulcers in the foot is to achieve wound closure as quickly as possible, prevent recurrence and amputation.

**Methods:** A true experimental study with pre and post-test design has been conducted among 32 diabetic foot patients at Sanglah General Hospital which divided into 2 groups: Hyaluronic acid and NaCl 0.9% using consecutive techniques. The hyaluronic acid compared to NaCl 0.9% on MMP-1, leukocyte levels, and bacteriocide effects in patients with Wagner’s diabetic foot 3 and 4 were assessed. Data were analyzed using SPSS version 20 software for Windows.

**Results:** The results showed that Hyaluronic Acid increased MMP-1 levels while NaCl 0.9% reduced MMP-1 levels significantly (P<0.05). Hyaluronic Acid was able to reduce leukocyte count significantly compared to NaCl 0.9% (P=0.006). A positive bacterial culture was also found significantly lesser in Hyaluronic Acid groups compared with NaCl 0.9% (P<0.001). Multivariate analysis using logistic and linear regression also showed a significant difference in the MMP-1 and leukocyte counts (P<0.001) and positive culture results using hyaluronic acids (OR: 0.020; 95% CI 0.003-0.166; P<0.001).

**Conclusion:** These results suggest that MMP-1 levels and leukocyte counts differed significantly between Hyaluronic Acid and NaCl 0.9% used. Hyaluronic Acid can increase MMP-1 levels in Wagner 3 and 4 diabetic care. The results of positive culture with Hyaluronic Acid used are less than NaCl 0.9%.

**Keywords:** Diabetic foot ulcer, Hyaluronic Acid, MMP-1 level, leukocyte count and bacteriocide effect.
Impalement injury to the right ventricle: a case report

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Background: Cardiac impalement injury is rare and one of the most challenging cases in chest injuries. The success in management of impaling cardiac trauma requires stabilization of the impaling object, transferability to a cardiothoracic surgery facility, rapid imaging, access to blood products and a ready surgical team. We report a case of impalement injury to the heart by a nail punctured, transfixing the right ventricle and its successful treatment.

Case: A 29 years old male, came to emergency unit at Kariadi General Hospital, referred from Kudus General Hospital with chief complain nail punctured on his chest 3 hours before admission, already perform Thorax X-rays AP/Lateral. Patient in stable hemodynamics. We performed sternotomy to remove foreign body and ventricular repair. After surgery, we monitor the patient’s condition at ICU.

Conclusion: Most of the penetrating cardiac injuries result in cardiac tamponade, hemorrhage or malignant arrhythmias, all potentially fatal. The present case is a unique one, in that such a grievous injury left the patient hemodynamically stable. We think following factors contributed to this successful management of this patient are proper handling by the primary attendants, quick transfer to appropriate center, rapid workup, and intensive postoperative care.

Keywords: impalement injury, right ventricle, surgery, management.

Public knowledge of peripheral arterial disease in Karawang population, Indonesia

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Background: Peripheral Arterial Disease (PAD) is a medical condition caused by blockage of arteries supplying extremities, mainly caused by atherosclerosis with several risk factors and comorbidities such as diabetes mellitus, hypertension, high cholesterol level and smoking. PAD was associated with a high risk of stroke, myocardial infarction, leading to cardiovascular death and major morbidity by causing claudication, functional impairment, disability and amputation of extremities. Prevalence of PAD dramatically increased in both developing and developed countries, but still largely being unrecognized and under-treated, compared with other cardiovascular diseases. One of the reasons known was the lack of public knowledge about PAD, showing that public awareness of PAD and their associated risks played a role in better public health in general.

Methods: This cross-sectional, population-based questionnaire survey study aimed to assess public knowledge of PAD in Karawang population in Tampuran, West Java, Indonesia. One hundred respondents were included in the study. This survey assessed demographics of the study population and knowledge of PAD, its causes and consequences.

Results: Most of the respondents are male (79%) with age less than 60 (79%), work as farmer (55%), and only finished elementary school (69%). Only 4% of respondents reported familiarity with PAD.

Conclusions: It can be concluded that the Karawang public is mostly unaware of PAD and its associated morbidity and mortality. National PAD awareness programs should be instituted, aiming to increase knowledge about PAD, eventually improving outcome of PAD patient through patients participation.

Keywords: peripheral arterial disease, public knowledge, Karawang.

Aortic dissection Standford A DeBakey type III in patient with suspected Marfan syndrome: case series

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Background: Patients with Marfan syndrome can experience acute aortic dissection 77% with type A and 23% with type B, and 64% suffer from aneurysm.

Case report: A 45 year old female admitted to intensive care with chest pain onset since 1 day ago, ECG examination shows sinus rhythm with normal axis. Chest x-ray shows dilatation and elongation of aorta with aorta aneurysm suspected. MSCT scan of thoracic shows dilatation of ascending aorta – distal of left subclavian artery – aortic arch – ascending aorta – thoracoabdominal aorta – right and left common iliac artery. On blood examination, we found elevation of D-dimer (3570 µg/L). Patient was given beta blocker to control heart rate 60 beats per minute, CCB and ACE inhibitor was given to control systolic below 110 mmHg. After putting so much thought, patient was scheduled for TEVAR procedure.

Conclusion: Patients with Marfan syndrome tend to have thoracic aortic aneurysms involving root, ascending aorta, arch, and descending thoracic aorta. TEVAR is minimally invasive procedure and has good outcome in patient with aortic dissection.

Keywords: Aortic dissection, Marfan syndrome, TEVAR.

Management of high flow arteriovenous malformations: embolotherapy

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Background: Management of arteriovenous malformations (AVMs) remains challenging because of their unpredictable behavior and high recurrence rate. A multidisciplinary approach based on new classification scheme and improved diagnostic techniques may improve their management. The purpose of this study to review our experience with embolotherapy to manage AVMs.

Case: A 17-year-old boy presented to vascular outpatient clinic with a lump...
on his left thigh which had been present for several years. He never had any surgery for the lump before. In the past several months, it had become bigger and disturbed his daily activity. There is no pain on his left thigh and no history of trauma before. He underwent an ultrasound exam of her left thigh, which revealed a cystic structure on his left suprapatellar which highly suspect arteriovenous malformation from musculocutaneous branch. On the ultrasound exam, popliteal artery and venous was seen by red and blue flow mapping with lumen caliber 3.6mm. There is no thrombus or plaque on the Ultrasound examination. He was referred to the Sanglah General Hospital for further evaluation and management.

In this case the patient was diagnosed left Suprapatellar high-flow arteriovenous malformations. The procedure was arterial embolotherapy. Embolotherapy were instituted and follow-up patient after 3 months of treatment. Patients with AVMs were reviewed to assess the diagnosis and management after treated with Embolotherapy.

**Conclusions:** Embolotherapy is a new therapeutic modality that is accepted as independent therapy, especially for surgically inaccessible lesions. Diagnosis and management of AVMs with Embolotherapy appear to improve the results and management with limited morbidity and no recurrence during early follow-up.

**Keywords:** endovascular embolization, arteriovenous malformation, intervention.

**Late thrombus in vascular trauma with bypass reconstruction therapy using autologous graft: a case report**

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**Background:** Dealing with vascular trauma is a challenge for clinicians. The most common cause of extremity ischemia in vascular trauma is thrombosis. Thrombosis has signs and symptoms that are not typical so that it sometimes creates difficulties in establishing a diagnosis. However, proper, fast and accurate management is needed to save both extremities and lives as well as preventing permanent disability.

**Case report:** A 37-year-old woman presents with a complaint of left knee pain so that she could not walk due to falling from a motorcycle an hour before coming to the hospital. From the physical examination, the knee area was warm with tenderness and CRT <2 seconds. On palpation, the posterior tibial artery and the dorsalis pedis artery pulsation seemed weak with a decrease in oxygen saturation from all of the left toes <90%. The patient was then diagnosed with a posterior type dislocated fracture of left knee with a suspected vascular disruption. For the initial treatment, closed reduction, back-slab and heparinization were carried out. From arteriography an occlusion was found consisting of thrombus in the branch of the left popliteal artery, therefore, an bypass reconstruction surgery with an autologous graft was done. The patient was discharged 7 days later without complaints of pain, the extremity function returned to normal and oxygen saturation on all toes were 98-99%.

**Conclusion:** Appropriate diagnosis and management time, we can reduce the number of morbidity and mortality in vascular trauma.

**Keywords:** late thrombosis, vascular trauma, bypass operation, autologous graft

**Influences of diameters of vein and artery, wall of vein and artery on maturation of arteriovenous fistula in the end-stage renal disease**

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**Background:** End-stage renal disease results in progressive deterioration in kidney function, thus requiring kidney replacement therapy. One of kidney replacement therapy is hemodialysis. Arteriovenous (AV) fistula is the ideal access to hemodialysis, but the failure of AV fistula is approximately 30-70%. The main challenge of the fistula is how to mature it and can be used for hemodialysis. Factors that influence the maturation of AV fistula are individual, operator, vascular and comborbid factors.

**Method:** The study was cross sectional study. The target population was the medical record of all patients with end-stage renal disease who has performed AV fistula surgery in RSKB Ring Road Selatan from May 1, 2017 to July 30, 2017. Maturation of the AV fistula was known from absence of a bruit or a thrill over the anastomosis site in a week postoperatively and it could be used as the hemodialysis access four weeks after surgery. Data was statically analyzed using descriptive analysis and multivariate regression analysis.

**Results:** There were 144 patients who enrolled in this study, 105 patients (73%) had successful AV fistula, 29 patients (27%) failed. There was an association between the maturation of AV fistula and arterial diameter (p <0,05). There was no association between maturation of AV fistula with venous diameter and local conditions of arterial and venous wall.

**Conclusion:** Arterial diameter is a factor that influences the maturity of AV fistula in end-stage renal disease patients who undergoing AV fistula surgery.

**Keywords:** end-stage renal disease, venous diameter, arterial diameter, wall of vein, wall of artery, maturation of AV fistula

**Characteristic of arteriovenous malformation that hospitalized at vascular surgery division Hasan Sadikin General Hospital Bandung**

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**Background:** Arteriovenous malformation is one of congenital abnormalities due to focal failure of vascular development which generally occurs at the 4th and 10th weeks. Arteriovenous malformations can occur in large blood vessels to the capillary level. Although there are not too many cases, arteriovenous malformations are still a clinical problem found in all parts of the world including

Methods: This data was taken from the medical records of patients with arteriovenous malformations in RSUP DR. Hasan Sadikin Bandung period 1 January 2005 – December 31 2018

Results: This study included 181 medical record data of patients with arteriovenous malformations. Based on gender, there are 81 people (44%) men, and 100 people (56%) women. Based on age there were 23 people (12%) at the age of 0-5 years, based on the place of predilection there were 63 people (34%) in the superior extremity. Based on therapy given, there were 51 people (28%) at 96% alcohol injection, based on the length of HLQ (Hospital Length of Stay), there were 126 people (69%) with HLQ 1-7 days

Conclusion: Arteriovascular malformations occur at the age of children and adolescents, men and women are almost the same, most are found in the superior extremities, the most therapy is alcohol injection 96%.

Keywords: congenital, arteriovenous malformation, vascular.

Relationship of neutrophils lymphocytes ratio with femur muscle damage in acute limb ischemia White Wistar rats

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Background: Acute limb ischemia (ALI) is a sudden decrease in limb perfusion that threatens limb viability and requires urgent evaluation and management. Assessment determines whether the limb is viable or irreversibly damaged. Neutrophil-lymphocyte ratio (NLR) is a useful marker for cardiovascular disease to delineate the prognosis. Endothelial dysfunctions related to atherosclerotic plaques are usually associated with states of neutrophilia together with lymphopenia processes. This study was to determine NLR to assess muscle tissue damage in the development of ALI, relationship duration of ALI and NLR value and relationship duration of ALI and muscle tissue damage.

Methods: This study was a post-test only control group performed on wistar strain white rats. Rats were divided into 5 groups, Control group (C), treatment group one (T1) examined NLR and femoral muscle tissue after 3 hours of ALI, T2 after 4 hours of ALI, T3 after 5 hours of ALI and T4 after 6 hours of ALI.

Results: The duration of ALI increases the NLR value in wistar strain white rats, the NLR value examined 6 hours after the rats experienced ALI increased significantly compared with the NLR values examined in the control group, the group examined 3 hours, 4 hours and 5 hours after the rats had ALI p = 0.004. NLR values increased significantly after 6 hours of ALI.

Conclusion: The duration of ALI increases the NLR value in wistar strain white rats, NLR values increased significantly after 6 hours of ALI.

Keyword: NLR, tissue damage, ALI

Oncology Surgery

Squamous cell carcinoma arised from epidermolysis bullosa: a case report

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Introduction: Epidermolysis Bullosa is a rare form of dermatologic disorder characterized by fragility of the skin and the appearance of multiple bullae throughout the body. Epidermolysis bullosa is associated with the incidence of generalized severe blistering, milia formation, atrophic scarring, pseudosyndactyly, and Squamous Cell Carcinoma (SCC).

Case: A 13-year-old female patient complained of a right foot injury arising from 1 year. Ulcer-shaped wounds were initially small in shape are currently worsen, widened, and felt burdensome since the past 6 months. Patients have a history of epidermolysis bullosa since her first day of birth with symptoms of brittle skin and easily bleed. The patient has received routine treatment in Dermato-venereology Department with a diagnosis of Dystrophic Epidermolysis Bullosa (DEB). The local status in the right pedis region extends to a broad ulcer throughout the dorsum of pedis, in which extending to the medial portion of the pedis by 15 x 6.5 cm, ulcers bobbing with focci of bleeding and crusting, irregular edges with the basis of granulated tissue. Pseudosyndactyly (+). Biopsy showed a squamous cell carcinoma, moderately differentiated type. The patient was decided to do a below-knee amputation.

Conclusion: SCC is the most common dermatologic malignancy in Epidermolysis bullosa. Surgery is the main modality in the case of SCC-DEB, in this case wide excision is not possible to do, thus below-knee amputation is done to get sufficient safety margin.

Keywords: dystrophic epidermolysis bullosa, squamous cell carcinoma, below knee amputation.

Comparison of diagnostic validity between mitotic activity index and ki-67 expression as predictor for breast cancer in distant metastasis

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Background: One particular cause of death from breast cancer is distant metastasis. In this study, we calculate and compare diagnostic value of Mitotic Activity Index (MAI) and Ki-67 Expression in predicting distant metastasis.

Methods: Study was conducted in Sanglah Hospital from January 2017 to February 2019. All histopathology results from open biopsy are examined.
Relationship between platelet-to-lymphocyte ratio and tumor infiltrating lymphocyte on metastatic in breast cancer patient

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Background: Platelet-to-lymphocyte ratio (PLR) is known associated with the prognosis of distant metastatic breast cancer. Tumor-infiltrating lymphocyte (TIL) in breast cancer also associated with the prognosis of distant metastatic breast cancer. In this study, we will examine the relationship between PLR and TIL, in association with the metastatic incidence in breast cancer.

Methods: This research is a retrospective, analytic, cross-sectional study. Data was taken from medical records of breast cancer patients at Sanglah General Hospital. Samples were taken by nested sampling by selecting all breast cancer patients from the period of January 1, 2017, to December 31, 2018, which had complete medical record data, with total sample 211. The PLR and TIL were calculated and analyzed in relation to metastasis incidence of breast cancer.

Results: The sample characteristics were sorted by age, education, occupation, the area of origin, menstrual status, breast cancer staging, breast cancer subtype, TIL levels, lymphovascular invasion (LVI) status, metastatic status, and breast cancer grading. The data were analyzed to know the association of PLR, TIL, confounding factors in relation to metastatic incidences. In the sample group with PLR ≥ 156 10^9/µL, there were 22.9% cases of metastases (p = 0.002). The sample group at low TIL had metastatic event 12.5% with (p=0.442).

Conclusions: PLR was associated with higher metastasis in breast cancer patients and low TIL had no association with breast cancer metastasis.

Keywords: breast cancer, PLR, TIL, metastasis

The relationship of hormonal receptor, HER-2 and Ki-67 changes after administration of anthracycline-based neoadjuvant chemotherapy with the results of histopathological grading in stage III breast cancer patients at Saiful Anwar Malang Regional Public Hospital 2018

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Background: Breast cancer is a cancer with the highest incidence in women worldwide. It also has a very high mortality due to late treatment. The most common treatment of stage III breast cancer is administration of neoadjuvant chemotherapy (NACT), which aims to reduce tumor size and control micrometastasis. Immunohistochemical examination is an important factor in determining breast cancer subtypes and subsequent therapy. However, NACT has been reported to change the expression of immunohistochemical analyses of Estrogen Receptor (ER), Progesterone Receptor (PR), Human Epidermal Growth Factor Receptor-2 (HER-2) and Ki-67 examined from biopsy and mastectomy preparations, so the breast cancer subtypes and its histopathological grading change.

Method: We graded the changes in immunohistochemical examinations of ER, PR, HER-2, Ki-67 and histopathological grading from 59 cases of stage III breast cancer after NACT administration. We analyzed the relationship between the changes in the expression of immunohistochemical examinations on the biopsy tissue specimens before NACT administration and from the tissue mastectomy after NACT administration associated with its histopathological grading with Spearman correlation analysis.

Result: There were changes in the results of the expression of immunohistochemical examinations of ER, PR, HER-2, Ki-67 and histopathological grading by 23.7%, 22.03%, 32.2% and 40.68% in stage III breast cancer patients who received NACT. There was a relationship with a weak correlation between the changes in immunohistochemical examinations of ER, PR, HER-2 and Ki-67 with the changes in histopathological grading. The correlation coefficients between ER, PR, HER-2, Ki-67 and the histopathological grading were r=0.265, r=0.317, r=0.352 and r=0.335.

Conclusions: Patients with stage III breast cancer who were treated with NACT experienced changes in the expression of immunohistochemical examinations of ER, PR, HER-2 and Ki-67 and would experience changes in histopathological grading, causing changes in the breast cancer subtypes. The changes that occur must be interpreted carefully since it will change the subsequent therapy. Therefore, it is necessary to conduct further research on the therapy response to patients who experience changes in the expression.

Keywords: ER, PR, HER-2, Ki-67 and histopathological grading
Residive malignant melanoma on right foot with right inguinal lymphadenopathy without involvement of right popliteal lymph nodes

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Background: Malignant melanoma is a malignant transformation endpoint of melanocytes which contain melanin pigment. Lymph node metastases of melanoma without the existence of regional lymph node enlargement is a rare case. This case is expected to be a description of the variation and management of lymph node metastases, especially metastasis in the inguinal lymph nodes without the existence of popliteal lymphadenopathy in dextral plantar foot-malignant melanoma.

Case report: A 59 years old man complaining about the existence of lump on his right foot approximately 8 months and the lump on his inguinal approximately 6 months before he came to hospital. Previously, He had surgery of tumor excision on 4 months of right foot with histopathological results of malignant melanoma. Then, he comes back again to hospital because the existence of lump on the same place which is on the right foot and inguinal. Surgery was done in the form of excision in the right plantar foot tumor and right inguinal lymph node with Histopathology results of malignant melanoma.

Conclusion: Malignant melanoma is a cancer which comes from melanocytes. Regional lymph node metastases often occur preceded by regional lymph node metastasis. Lymph node metastases often occur with preceded by regional lymph node metastasis.

Keyword: Melanoma malignant, lymph node, tumor.

Malignant fibrous histiocytoma of the neck: a case report

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Background: Malignant fibrous histiocytoma (MFH) is the most common soft-tissue sarcoma, but is relatively uncommon in head and neck area. Histologically, it is difficult to distinguish this tumor from other sarcomas and carcinomas. Scrofula is one of the most often differential diagnosis for a lump in the neck, especially in Indonesia.

Case Description: In the case reported here, the patient was a 30-year-old man who presented with swelling of the right neck. A CT scan demonstrated a 5 cm in diameter, inhomogeneous lesion. Fine-needle aspiration (FNA) was performed three times but we were unable to reach a definitive diagnosis. Open biopsy was performed three times with chronic granulomatous inflammation. Patient got an oral anti-tuberculosis for 7 months but the tumor enlarged and experienced right pleural effusion. MFH was subsequently diagnosed by open biopsy, and chemotherapy with CYVADIC regimen for 6 cycles was performed with partial response. External radiotherapy with 70 Gy of radiation was performed. However, the tumor a bit enlarged and appeared ulcer after this therapy. The patient is alive after a follow-up period of 7 months.

Conclusion: A patient with MFH in the right neck was treated with chemotherapy given a good result but there is no effect to shrinkage tumor after radiotherapy. We suggest that need further examination for mass in the neck if suspected tuberculosis.

Keyword: malignant fibrous histiocytoma, neck, scrofula.

Ultrasound guided vacuum-assisted breast biopsy in mayapada hospital: a case series

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Background: Vacuum-assisted breast biopsy (VABB) was developed to overcome some of limitation aspects of core-needle biopsy. VABB allows the specimens to be collected by a small needle incision and can provide a more accurate diagnosis and completely remove the lesion under real-time ultrasound guidance. This study is to present the role of VABB for breast lesion cases in Mayapada Hospital.

Method: This was case series which was done between August 2018-May 2019 at Mayapada Hospital. VABB was done under local or general anesthesia with ultrasonography guidance and an 8 or 11 gauge needle. Ultrasonography before the procedure includes BIRADS SCORE 2 until 4A.

Result: There were 21 cases included in this study. Mean age were 33.67 y.o (SD 10.65). Median number of lesion was 2 (1-13). Median diameter of the lesion were 1 (0.3-3.5) cm. Median number of specimen collection were 3 (3-13) and median duration of procedure was 45 (10-165) minutes. There were no bleeding or infection, but 66.67% patients had hematoma. All tumor has been completely removing and there was ductal carcinoma in situ (DCIS) on the histopathology result in 1 lesion, the other histopathology result was benign.

Conclusion: VABB with ultrasound-guided is minimally invasive and effective for total excision breast tumor and have minimal complication.

Keyword: ultrasound, guide, biopsy, breast.

Comparison of vitamin D levels in post menopause patients locally advanced breast cancer (LABC) with metastasis breast cancer (MBC) in Dr. Soetomo General Hospital, Surabaya, Indonesia

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Background: Breast cancer is a malignancy with the highest prevalence for...
Indonesian women and becoming an international health problem. Globocan Data, International Agency for Research on Cancer (IARC) 2018, there are 2,088,849 new cases (11.6%) with mortality rate 626,769 (6.6%) caused by breast cancer around the world. Based on recent research, vitamin D deficiency is associated with tumor development and the incidence of metastasis in breast cancer. Breast cancer patient who has low vitamin D levels have more aggressive diseases, of which 94% have MBC, and 73% are more likely to die than breast cancer patients with normal vitamin D levels. This study aimed to discern the differences in mean vitamin D serum levels in postmenopausal female LABC patients with MBC.

Methods: This study was conducted in an observational analytical Cross Sectional Study by examining vitamin D serum levels in the LABC and MBC groups for the period on March-April 2019. A total of 50 postmenopausal female patients with LABC (25 samples) and MBC (25 samples). Study was conducted at Policlinic of Oncology Surgery/Cancer Development and Service Center of Dr. Soetomo General Hospital, Surabaya. Comparison of blood vitamin D levels in the LABC group with MBC group was analyzed.

Results: The comparison of vitamin D serum levels between the LABC group and MBC group, with the mean of the LABC group of 19.70 ng/mL and the MBC group of 16.95 ng/mL, with the significance value of the Mann-Whitney test p=0.018. There were also significant differences in vitamin D serum levels between the LABC and MBC groups by categorizing vitamin D serum levels into deficiencies, insufficiency, normal and high (p =0.005), using the Chi-Square test.

Conclusion: There was a significant comparison of vitamin D serum levels in postmenopausal female patients of LABC group with MBC group and the incidence of vitamin D deficiency was high in the LABC and MBC groups so the results of this study could be used in further studies to determine whether low vitamin D levels were wrong one predictor factor in the incidence of MBC.

Keywords: Levels of vitamin D, Locally Advanced Breast Cancer, Metastasis Breast Cancer.

Colorectal cancer in young adults: two case report

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Background: Colorectal cancer (CRC) in young adults is low, but for unclear reasons, a rise in CRC incidence has been reported in patients aged <50 years. Early detection of colorectal cancer is important for early diagnosis and improve clinical management. We report two cases of young adults diagnosed with adenocarcinoma of the colon or rectum.

Methods: We described clinical examination, pathological and management of two patients diagnosed with adenocarcinoma of the colon or rectum.

Results: Twenty-four-year-old women presented with symptoms of abdominal pain and vomiting for 5 months and weight loss. Thirty-three-year-old man came to general surgery department of RSUP Prof R.D. Kandou General Hospital in 2017-2018

Conclusions: Within a young group, CRC is usually diagnosed later and potentially associated with worst prognosis. Thus, a greater suspicion rate is necessary when evaluating young patients with common symptoms.

Keywords: adenocarcinoma, colorectal cancer, young adult.

Profile of patients with tongue carcinoma undergoing therapy in Prof. Dr. dr. R. D Kandou General Hospital in 2017-2018

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Introduction: The incidence of tongue carcinoma is more common in men than women with a ratio of 3:1 and vulnerable age around the age of 40 and 50s. Some risk factors that are believed to be caused of this event are smoking, alcohol and exposure to chemicals.

Method: This study is a retrospective study conducted at Prof. Dr. dr. R. D. Kandou General Hospital with 24 patient data taken from 2017-2019 at the Central Surgery Installation. Data taken were categorized according to gender, age, smoking, exposure to chemicals. The collected data is then categorized again by stadium, type of Anatomical Pathology results, metastasis, follow-up treatment and patient mortality rates.

Results: The highest number of patients is male patients aged 40-60 years with a history of smoking and stage III who are undergoing treatment. Chemotherapy, target therapy, radiation therapy and surgery is still an effective treatment and provide better survival rates in Prof. Dr. dr. R. D Kandou General Hospital.

Conclusion: Multimodality is needed at an advanced regional stage which will provide better results for patients with tongue cancer.

Keyword: tongue carcinoma, chemotherapy, surgery

Squamous cell carcinoma of the tongue: a case report

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Introduction: squamous cell carcinoma of the tongue is one of the most common oral cavity cancers - treatment of this disease including operative management which is hemiglossectomy and neck dissection. Here we present a case report about squamous cell carcinoma of the tongue which the incision employed for bilateral selective neck dissection is transverse incision along a suitable skin crease for better aesthetic outcomes without adversely affecting oncologic outcomes.

Case: a 40 years old woman came to general surgery department of RSUP Prof R.D. Kandou, Manado with chief complaint of tongue ulcer. After thorough examination, the patient diagnosed with squamous cell carcinoma of the tongue T4N1M0 stage III. Then we decide to do hemiglossectomy and bilateral selective neck dissection after neoadjuvant chemotherapy. Now the patient is undergoing adjuvant radiation therapy for two months.

Conclusion: transverse incision along a suitable skin crease which we choose
for bilateral neck dissection not only give better aesthetic outcome than classical incisions. This type of incision also didn’t make it difficult to gain access to level I – III.

**Keywords:** transverse skin crease incision, squamous cell carcinoma of tongue, aesthetic incision

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**The distribution of histopathological of ameloblastoma patients in Dr. Saiful Anwar Regional General Hospital between 2016 and 2018**

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**Background:** Ameloblastoma is a benign tumor originating from odontogenic epithelial cells. However, it has local aggressivity and high recurrence. It contributes to the second most common odontogenic tumor worldwide. The diagnostic based on histopathology and was divided into five types, that are solid, unicystic, extraosseous, and desmoplastic types.

**Methods:** Data was collected from Dr. Saiful Anwar Regional General Hospital medical records from 2016 to 2018. Data were analyzed descriptively with the cross-sectional study.

**Results:** There were 19 patients with ameloblastoma where 58% of patients were male. The average age of patients at diagnosis is 34.52 years with a median age of 28 years. Most tumor localization was found in the mandible (84%), and the highest histopathological of 56% was solid. The solid type of ameloblastoma was found 50% follicular subtypes, 42% plexiform types, and 7% mix subtypes. There are 4% unicystic subtypes, 32% are undefined, and 4% are still suspicious of ameloblastoma.

**Conclusion:** Most histopathological features are solid types, then unspecific, suspicious of ameloblastoma and unicystic types.

**Keywords:** ameloblastoma, histopathology, localization

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**Profile of ameloblastoma from a retrospective study in Prof. Dr. R. D. Kandou, Manado, Indonesia**

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**Background:** Ameloblastoma is an odontogenic tumor occurring mostly in mandible. This tumor arises from epithelium that plays a role in the process of tooth development, but trigger of neoplastic transformation of the epithelium remains unknown. Ameloblastoma could grow from various source of odontogenic epithelium and about 20% of them are along with impacted tooth crowns that have incomplete root formation. The purpose of the study was to find out the distribution and frequency of the most common region occur in ameloblastoma and the reason.

**Methods:** This was a retrospective study with ameloblastoma postoperative conducted from 2017-2018 at Central Surgery Installation Kandou Public Hospital. Criteria of inclusion are patient with ameloblastoma and had post-operative history which data from Panoramic, CT-Scan, or FNAB.

**Results:** Total sample is 13 samples with women is 5 patient (38.4%) and men are 8 patient (61.6%). Mandible region mostly occurs with 12 patient (92.3%) and maxilla region is 1 patient (0.7%).

**Conclusion:** Ameloblastoma is along with follicular cyst and along with unerupted tooth in cyst lumen so mostly occur in mandible.

**Keywords:** Mandibulla, Maxilla, unerupted tooth, Ameloblastoma

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**Prognostic significance of thymoma in patients with myasthenia gravis: two serial cases after surgery**

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**Introduction:** Thymoma is the most common mediastinal tumor. They have varied presentation ranging from asymptomatic incidental mediastinal masses to locally extensive tumor with compressive symptoms and distant metastases. They have frequent association with myasthenia gravis. Patients of thymoma with myasthenia gravis have a favorable outcome due to early disclosure of the disease. There are conditions that affect the outcome of thymoma in patients with myasthenia gravis. Early diagnostic and management might increase better prognosis.

**Case:** The first case was a forty-nine years old female with history of myasthenia gravis and mediastinal mass for almost one year. Suddenly, she ran into dyspnea and cardiac arrest when she got return of spontaneous circulation (ROSC) after cardiopulmonary resuscitation (CPR) but with stuporous condition. Then the patient referred to surgery department and we performed extended thymectomy. Unfortunately the patient didn’t regain her consiusness and died at day 30° post operation. The second case was a twenty six years old male with dyspne for almost two months and weakness of muscles every morning. He got routine medication of myasthenia gravis, prostigmin and methyl prednisolone. The thorax CT-Scan showed mediastinum anterior mass with infiltrate on superior lobe of right lung. Patient develop myasthenic crisis on day 3° post operation and discharge from hospital on day 15°.

**Conclusion:** Patient of thymoma with myasthenia gravis if controlled treatment and optimal condition of patient produce significance better prognostic. With advances in medical science in new techniques and drugs, there is a remarkable improvement in the management of thymoma with myasthenia gravis.

**Keywords:** thymoma, myasthenia gravis

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**Squamous cell carcinoma of the thyroid gland: a case report**

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**Introduction:** Thymoma, myasthenia gravis and mediastinal mass for almost one year. Suddenly, she ran into dyspnea and cardiac arrest when she got return of spontaneous circulation (ROSC) after cardiopulmonary resuscitation (CPR) but with stuporous condition. Then the patient referred to surgery department and we performed extended thymectomy. Unfortunately the patient didn’t regain her consiusness and died at day 30° post operation. The second case was a twenty six years old male with dyspne for almost two months and weakness of muscles every morning. He got routine medication of myasthenia gravis, prostigmin and methyl prednisolone. The thorax CT-Scan showed mediastinum anterior mass with infiltrate on superior lobe of right lung. Patient develop myasthenic crisis on day 3° post operation and discharge from hospital on day 15°.

**Conclusion:** Patient of thymoma with myasthenia gravis if controlled treatment and optimal condition of patient produce significance better prognostic. With advances in medical science in new techniques and drugs, there is a remarkable improvement in the management of thymoma with myasthenia gravis.

**Keywords:** thymoma, myasthenia gravis
ABSTRACT

Background: Squamous cell carcinoma of the thyroid is a rare neoplasm with poor prognosis. It has median survival approaching less than six months. Surgical excision of primary SCC. Chemotherapy and radiotherapy treatment has a poor response to chemo-radio-resistant cancer. The purpose is to report a case of squamous cell carcinoma of the thyroid gland in a 57 years old man in Dr Kariadi General Hospital includes explaining the therapy that has been done.

Case: A 57 years old male patient was admitted to oncology clinic Dr. Kariadi hospital due to progressive neck enlargement for the past 2 months. He was smoker for more than 20 years. Fixed hard neck mass was palpable in the right neck region by physical examination. The result of ultrasound was an enlargement of right and left lobe of thyroid gland accompanied by solid nodule on right thyroid with enlargement of lymph node on right neck region level 2. The patient was scheduled for total thyroidectomy. Histological examination showed the presence of differentiated squamous cell carcinoma which infiltrated to the right lymph node. Two months later after surgery the patient was submitted to adjuvant chemotherapy. Patient has squamous cell carcinoma based on pathological anatomy result and patient had a total thyroidectomy surgery. Patient was submitted to adjuvant chemotherapy.

Conclusion: Primary thyroid gland squamous cell carcinoma is extremely rare and has bad prognosis. Complete surgical resection is the best for treatment. The adjuvant chemotherapy and radiotherapy are still controversial.

Keyword: squamous cell carcinoma, thyroid gland, surgery.

Characteristics and management adrenal tumour in Dr. Kariadi General Hospital Semarang, Indonesia

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Background: An adrenal tumor is any benign or malignant neoplasms of the adrenal gland, several of which are notable for their tendency to overproduce endocrine hormones. The study aims to know the characteristics and management of patients with adrenal tumor in Dr. Kariadi Hospital from period 2012-2018.

Methods: This retrospective study included 10 AT patients on Dr. Kariadi Hospital between January 2012 to July 2018. Sex, age at visit, diameter size of lump, pathology anatomy (PA) result, survival rate, hypertension, hyperglycemia and hypokalemia were analyzed. The management was divided into two parts, unresectable and resectable.

Results: Out of 10 patients, 7 (70%) were men, with median age were 39 years (interquartile range: 4 - 67 years). Diameter size of lump > 10 cm as many as 6 patients, and size 4-10 cm as many as 4 patients. Most PA results were malignant by 8 patients (80%) with Adrenal cortical Carcinoma type, one patient with benign PA result (adrenal cortical adenoma). The survival rate was 40%, with 6 patients who underwent therapy were died. Patients with hypertension were 3 (30%). Patients with hyperglycemia and hypokalemia as much as 6 (60%). The management was divided into 2 major parts, unresectable and resectable parts. There were 3 patients included in unresectable criteria, 1 patient underwent biopsy, and 1 patient performed by bulking tumor, and 1 patient underwent embolization. 7 patients were included in the resectable group, 3 patients followed by chemotherapy, 2 patients followed by external radiation and 2 patients died after surgery.

Conclusion: Characteristic of mean age of patients is 39 years, with more men suffering from adrenal tumors. Embolization performed successfully increases the survival rate in 1 advanced patient, despite anatomical pathology results adenocortical carcinoma. Functional cases of hypercortisol and hypocortisol can be handled well with a multidisciplinary approach.

Keyword: Adrenal tumor, kariadi hospital, management, characteristics.

Comparison of response and side effects of taxane + anthracycline chemotherapy based to gemcitabine + platinum agents regiments in breast cancer patients in Oncology Polyclinic Prof. R. D. Kandou Manado General Hospital, Manado, Indonesia

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Introduction: Taxane + Anthracycline are the choice of several oncology health care centers, but are found in several studies, that chemotherapy-based regimens of Platinum agents can be an option in triple-negative breast (TNBC) breast cancer.

Method: Retrospective study to compare a Taxane + Anthracycline-based regimen to a Platinum+Cisplatin-based regimen from 43 patients who came for treatment were evaluated during the study period. Chemotherapy response and side effect were recorded.

Result: data obtained by users of taxane+anthracycline regimens were 29 patients (67%) and found 13.7% patients unresponsive, 10.3% had side effects of therapy. While users of the Gemcitabine+Cisplatin regimen were as many as 14 patients (32.5%) in which 10% failed therapy and were replaced with anthracyline regimens.

Conclusion: Cisplatin+gemcitabine regimens found patients with minimal side effects and better presentase compared to patients using the Taxane+Anthracycline regimen. So we conclude that the Gemcitabine+Cisplatin based regimen can be used as an alternative in patients with breast cancer.

Keyword: chemotherapy, side effect, comparison, efficacy.

Combined mandibulectomy and neck dissection operation (COMmando) and major pectoral flap: a case series

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Background: Commando is a complicated operation for first-degree malignancy of the tongue. It comprises glossectomy and hemimandibulectomy together with block dissection of the cervical nodes. The operation is so named because of its extensive nature. Mandibulectomy is done with a powered oscillating or reciprocating saw; or with small sharp osteotomes to avoid
inadvertently fracturing the mandible. Identify and preserve the submandibular duct, and the lingual and XII nerve if possible. Pectoralis major flap is used for reconstruction of soft tissue defects of the oropharynx, oral cavity, hypopharynx, and skin of the neck.

**Case:** In this case series, patients come with tongue cancer stage III. Physical examination showing leukoplakia, a tongue ulcer, a stiff tongue and jaw, problems swallowing and chewing food, numbness in the mouth. A clinical diagnosis of tongue cancer stage III was findings from histopathology is squamous cell carcinoma, CT scan the neck of the lingual is anterior lingual mass.

**Conclusion:** Early stage tumors of the floor of the mouth can be treated with either radiation therapy or surgery with equal cure rates. Advanced stage carcinoma of the floor of the mouth is preferably treated with a multimodality approach such as surgery and radiation therapy of the primary tumor site. A surgical technique used in this context is commando.

**Keywords:** commando, pectoral major flap, tongue cancer.

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**Metaplastic squamous cell carcinoma of the breast: a case report**

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**Background:** Primary squamous cell carcinoma is an extremely rare form of metaplastic breast cancer (MBC) representing about less than 0.1% of all breast malignancies. Due to its relative rarity and heterogeneous histologic presentation, the pathologic diagnosis of MBC is difficult. It is generally a triple negative tumor with aggressive behavior and resistance to standard chemotherapeutic regimens. Management decisions need to be individualized with emphasis on platinum-based chemotherapy and targeted therapy. Compared to patients with intraductal carcinoma (IDC), those with MBC have worse outcomes with 5-year survival rates ranging from 49% to 68%. We report a case of this rare breast malignancy and appropriate management decisions.

**Case description:** A 48 years old postmenopausal woman was admitted to the emergency ward with ulceration and bleeding a large mass on the right breast. The mass was not fixed to the chest wall. Palpable lymphadenopathy was found in the right axilla. No abnormalities were observed in the opposite breast or axilla. Low levels of red blood cells, hemoglobin and hematocrit in blood analysis was normalization with packed of red blood cells transfusion. On chest imaging there were not nodular lesions and free fluid in the pleural cavity of both lungs was seen. Pathologic result from incisional biopsy demonstrated squamous cell carcinoma (SCC) of the breast. After general status condition was optimal, patient underwent right radical mastectomy (Halsted's method) and local flap reconstruction. HE staining demonstrated malignant cell densely arranged with tubular formation <10% that grows invasively to surrounding fibrous stroma. The tumor cell consists of malignant epithelium with round-oval shape, atypical and pleomorphic nuclei, eosinophilic cytoplasm which shows squamous metaplasia and several cytoplasm are clear. No lymphovascular space invasion (LVI) is seen. All the four lymph nodes removed were negative malignant cell and tumor margin was free (pT4pN0M0). The histopathological result was metaplastic squamous cell carcinoma of the breast, poorly differentiated (G3). Immunostaining analysis confirmed negative expression of estrogen, progesterone and epidermal growth factor receptors (EGFR). While HER2 status, Ki-67 (>14%) and pan-cytokeratin expression were positive. The diagnosis of the tumor was established as HER2 subtype SCC of breast with high proliferation index (Ki67 positive in >14% cancer cells). On the 7th postoperative day, patient was discharged in good general condition. Patient received platinum base adjuvant chemotherapy.

**Conclusion:** Metaplastic SCC of the breast (SCCB) is a rare entity. There is still no consensus regarding adjuvant treatment. However, those patients who have received adjuvant chemotherapy have demonstrated a better survival rate than those who did not. No associations between radiotherapy and outcome were found. DFS and OS were still significantly worse for MBC when compared to TNBC matched cases.

**Keywords:** breast cancer, metaplastic squamous cell carcinoma, treatment, prognosis.

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**Breast reconstruction in patients with wide defect who underwent mastectomy procedure using latissimus dorsi flap, skin graft, and horse shoe flap at Prof. Dr. R. D. Kandou Hospital Manado, Indonesia**

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**Background:** Breast reconstruction in patients undergoing mastectomy procedure is an exceptional part of the comprehensive management of breast cancer, particularly regarding patients’ psychosocial well-being and quality of life. This study aims to compare the outcomes of several breast reconstruction techniques during mastectomy procedure in breast cancer patients with a wide defective area in our health care facility.

**Case:** Breast reconstruction procedure is performed in order to recreate the perfect shape and symmetry of the affected breast following mastectomy procedure by correcting the anatomical defect while still paying attention to the principles of oncology. In this regard, we investigated which reconstruction technique is best applied in breast cancer patients with a large defective area who underwent a mastectomy procedure. Careful observation and comparison were done in patients undergoing Immediate Reconstruction using the following reconstruction techniques: skin graft, latissimus dorsi flap and horseshoe flap. These techniques were compared based on several parameters, including the length of hospital stay, time to reach complete wound healing, and rate of post-surgical complications.

**Conclusion:** From the observation, it was noted that the horseshoe flap provided the best outcomes compared to the other techniques. It resulted in a shorter duration of hospital stay, a faster wound healing and a lower rate of complications. Horseshoe flap resulted in better patients satisfaction compared to skin graft and latissimus dorsi flap following mastectomy procedure in breast cancer patients suffering from a wide defective area.

**Keywords:** breast reconstruction, horseshoe flap, skin, mastectomy.
Features of the incidence of advanced breast cancer in Dr. Wahidin Sudirohusodo Hospital, Makassar, Indonesia

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Background: Breast cancer is the most incidence of cancer in Indonesia followed by cervical cancer. The average mortality caused by breast cancer is 17 per 100.000 of population. This case requires special attention by referral center and rural surgeon to manage morbidity and mortality of breast cancer.

Case Description: The incidence of advanced breast cancer in Wahidin Sudirohusodo Hospital as many as 918 cases in the last 2 years. Although it has been handled with multi-modalities including surgery operative, chemotherapy and hormonal therapy, but the mortality rate is also high. This incidence needs serious and active role of rural surgeon to educate and make surgery operative accompanied with oncolgy department for follow up. Breast cancer is also expected to be treated as early as possible with the right therapy.

Conclusion: The high incidence of breast cancer advanced stage in Wahidin Sudirohusodo Hospital requires the active role of rural surgeon in providing optimal therapy and coordinate with oncology department. The comprehensive treatment is expected to reduce morbidity and mortality of breast cancer.

Keywords: breast cancer, comprehensive treatment.

Difficulties in management of Klatskin tumor: case report and review of literature

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Background: Tumours of the biliary tract are rare, and difficult to recognize in early stages. Due to its late presentation and the location of the tumor, making a definite diagnosis is not always possible preoperatively. Therefore, some guidelines maintained that diagnosing these tumors may be made intraoperatively or postoperatively, when tissue samples are available. We report a patient with jaundice and subsequently diagnosed as Klatskin tumor.

Case: A 54 years old women came to our surgical clinic with the chief complaint of jaundice for 2 months. MRCP showed mass on the confluent of bile duct, infiltrating both rights and left hepatic duct, with no evidence of metastasis or infiltration of portal vein. CEA and CA 19-9 were within normal limits. We found the tumor clinically does not extend to the bile duct serosa, performed choledocotomy and biopsy of the tumor, requesting frozen section pathology evaluation. The result showed no malignancy. However, due to the tumor showed clinical signs of malignancy and caused bile obstruction, we decided to performed oncological resection of all involved bile ducts and dissection of lymph nodes, and bilateral hepaticeojjunostomy bypass Roux en Y. The postoperative pathological evaluation showed an adenocarcinoma.

Conclusion: For clinical and radiological highly suspicious Klatskin tumor, exploratory laparotomy, intraoperative biopsy and intraoperative decision based on the findings may be justified. Surgeon must be prepared to perform all necessary procedure before attempting to do laparotomy.

Keywords: Klatskin tumor, difficulties in management, intraoperative decision.

Association between high level of receptor activator of nuclear factor kappa β with subtype of luminal A with the incidence of bone metastatic in person with breast cancer

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Background: Bones are the most common distant metastasis site in breast cancer, especially in advanced stages. Bone metastasis involves continuous interaction between tumor cells, osteoblast, osteoclast, and bone matrix. There are many risk factors regarding distant metastasis sites in breast cancer patients, including breast cancer molecular subtypes and mediator known as Receptor Activator of Nuclear Factor Kappa β (RANK). In this study, we explore relationships between Luminal A breast cancer and RANK in association with bone metastasis site.

Method: This study is a cross-sectional analysis study conducted in Sanglah General Hospital, Bali Denpasar. Estimated sample size was measured using formula to hypothesize between two proportions, and obtained 34 patients as our minimal sample needed in this study. Data will be presented in 2x2 tables, consist of RANK Protein expression and molecular cancer subtype (Luminal A / Non-Luminal A) in row section and Metastasis (Bone Metastasis or Non-Bone Metastasis) in column section. Univariate analysis was done using comparative method between 2 unrelated categorical groups: Chi-Square and Fisher’s Exact Test. OR values were measured and p-value <0.05 considered to be significant statistically.

Result: From these 106 patients, we used nested sampling to randomize these patients into our study sample, with total of 36 patients. The mean age of our patients is 48.64 ± 9.86 years. Luminal A subtypes tend to metastasize into bone component compared with Non-Luminal A subtypes with p-value 0.041 and OR: 3.5; with 95% CI (0.82 – 14.84). Tumor with high-RANK expressions tends to metastasize into bone component compared with low-RANK expressions with p-value 0.045 and OR 3.25; with 95% CI (0.81 – 13.03).

Conclusion: There is a significant difference statistically in molecular subtype breast cancer and RANK protein expressions between two patient groups (bone metastasis site vs another metastasis site)

Keyword: breast cancer, bone metastasis, Luminal A breast cancer, RANK Protein.
Correlation thyroid ultrasonography TIRADS classification before operation with histopathology results after operation on thyroid nodule patients in Prof. R.D. Kandou Hospital Manado between January to December 2018

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Background: Thyroid nodules are found in 30% -50% of the current population, and are often found incidentally on physical examination or diagnostic procedures for other primary diseases. In the past 30 years, advances in imaging technology have enabled the identification of more previously undetected conditions through the use of imaging modalities

Method: Ultrasound is a safe and fast examination method, sensitive to the detection of thyroid nodules, and is a feature that can be used to guide further investigations or management decisions. In this case, the author composes based on a retrospective description of data carried out by collecting secondary data obtained from medical records of request sheet for thyroid ultrasound examination before surgery and histopathological results after thyroid surgery at RSUP Prof. Dr. R.D. Kandou Manado 2018.

Results: There were 51 people with clinical symptoms of thyroid nodules, aged between 17-75. According to the TIRADS classification, 41 samples of patients (80%) were found to be malignant while there were ten samples (20%) of benign patients. Based on the histopathology of the malignant group, 30 samples were patients (59%) and were found, while the benign group was 21 patients (41%). Both data were analyzed using Chi-square test with correlation p>0.01.

Conclusion: There was a significant relationship between ultrasound examination in patients with thyroid nodules that were examined before surgery and histopathological results after surgery. Social economy factors may influence the height of awareness and access to examination when there are symptoms, so it is necessary to provide education and follow-up as early as possible to reduce the occurrence of further complications in the thyroid, as well as a more complete reporting format for neck ultrasound according to TIRADS classification diagnosis so that follow-up can be done properly and quickly.

Keywords: Thyroid, Ultrasound-TIRADS, Histopathology, Chi-square.

Phyllodes tumors of the breast: analysis 69 cases in five year period

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Background: Phyllodes tumors are rare fibroepithelial breast tumors with diverse biological behavior. The aim of this was to analyzed phyllodes tumors of the breast diagnosed at Wahidin Sudirohusodo Hospital Centre over 5-years period.

Methods: The method used is a retrospective-descriptive study in the last 5 years. A study of medical records of patients who came for treatment in the period January 2013 - December 2017. From the data obtained will be processed then presented in the form of tables, curves and narratives.

Results: 69 cases of phyllodes tumor were diagnosed during the period, 31 cases (44.93%) benign and 38 cases (55.07%) malignant. Age ranged from 20-71 years with group 40-49 years old are the highest. 42 cases (60.87%) was the right site, 25 cases (36.23%) at the left and 2 cases bilateral. Simple mastectomy was the most performed, 53 cases (76.81%). Axillary staging was carried out in 16 cases (23.18%), 9 benign and 7 malignant, none of them had nodal metastasis. 10 cases (14.49%) received chemotherapy and 16 cases (23.18%) malignant phyllodes received radiotherapy. 4 cases (5.79%) with distant metastases and 5 cases (7.24%) developed local recurrence. The overall 5-year survival rate was 6 cases (8.69%) death.

Conclusion: Careful examination of directed history taking, physical examination, and imaging support coupled with appropriate treatment provide better survival in cases of phyllodes tumors.

Keyword: phyllodes, breast tumor, overall survival rate.

A giant epidermal cyst of the parietooccipital region

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Background: Epidermal cysts are common benign cutaneous cysts. An epidermal cyst may be classified as a giant epidermal cyst if it exceeds 5 cm. Giant epidermal cysts with a diameter of 5 cm or more are rare but have been reported. The epidermal cyst rarely discloses malignancy. Although rare, a case of malignant change of benign epidermal cyst is possible. We describe here a rare case of a giant epidermal cyst of the parietooccipital region in a 35-year-old man.

Case: A 35-year-old man was admitted to the hospital with a huge swelling over the scalp for the past 30 years. The swelling was non-tender, cystic, measuring 18x13x 9 cm, and was situated in the parietooccipital region. Skull CT revealed an oval shape, hypodense mass, well defined, in the parietooccipital scalp with no intracranial extension. Complete excision of the lesion was carried out. Excision of redundant skin is needed to achieve good aesthetic results. Histopathological examination showed a thin layer of benign stratified squamous epithelium and lamellated keratin debris present in the cyst. There is no sign of malignant transformation.

Conclusions: It can be stated that although epidermal cyst is a slow-growing benign tumor, it can cause diagnostic difficulties when located in the scalp area and when there is a possibility that cranial bones and even intracranial structures are affected by the cyst. CT, MRI or ultrasonography are crucial to determine if the cyst contacts intracranial structures. The histopathology examination should be done to detect malignant transformation.

Keyword: giant, epidermal, epidermoid, cyst.
Transoral endoscopic thyroidectomy vestibular approach, minimally invasive for best cosmetic outcomes

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Background: Endoscopic thyroidectomy is a favorable approach to treat patients with benign nodules limited to 10 cm in size and thyroid cancer which has 1–2 cm cancer nodule without extrathyroid extension. Transoral endoscopic thyroidectomy vestibular approach (TOETVA) is a promising procedure with many advantages such as truly scar-free healing, minimally invasive dissection, and accessible approach to both thyroid lobes. This study aims to report the serial case of TOETVA procedure successfully done in RSUP Prof DR D Kandow, Manado, Indonesia.

Methods: The present prospective study was conducted from January 2018 to May 2019. 78 patients presenting with Thyroid nodule. There was 62 patient in malignant group and 16 patients in benign group of TIRADS confirmed by ultrasound. While the cytology confirmed 48 malignant and 30 benign. From within the benign group, there were 8 cases fulfilled the inclusion criteria of TOETVA and TOETVA were performed.

Results: Average time in operation was longer, range from 110 – 130 min. Pain after surgery is minimum. All patients who underwent TOETVA discharged from the hospital two days after the surgery without any complication. They felt satisfied with the surgery outcomes, especially the cosmetic result.

Conclusion: TOETVA with the potential for scar-free surgery is a safe, effective procedure which provides good cosmetic outcomes.

Keywords: TOETVA, thyroid surgery, transoral endoscopic

Correlation between hypoalbumin and mortality rate in breast cancer patients at Dr. Sardjito Central General Hospital in 2018

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Background: Cancer is a major public health problem in the United States and different parts of the world. The Indonesian Ministry of Health (2009) stated in the 2008 Indonesian Health Profile that malignant breast neoplasms were ranked first in the incidence of cancer in hospitalized patients in 2004-2007. Serum albumin is commonly used to assess nutritional status, disease severity, progression and prognosis of the disease. In the hospital situation, many reported incidences of serum albumin levels and their association with hospital mortality, length of stay, and nosocomial infections. The study aims to find out the correlation between hypoalbumin and mortality rates in breast cancer patients at Dr. Sardjito Central General Hospital.

Method: This research is a quantitative study with a cross-sectional design.

This study took data on breast cancer patients in 2018. All data analyzed using Spearman correlation, with p-value <0.05 means that the results are significant

Results: The age range of 41-50 years is most affected by SSC, with the proportion of 30.77%, the age group 31-40 years and 71-80 years at 19.23%, age group 61-70 years at 15.38%, age group 31-40 years at 7.69%, and age group 21-30 years and 81-90 years at 3.85%. After being analyzed with the Spearman correlation, it was shown that there was no significant correlation between age and incidence in breast cancer patients (p = 0.877).

Conclusion: There is no significant correlation between age and the incidence of squamous cell cancer in Dr. Sardjito Central General Hospital, Yogyakarta.

Keywords: Breast cancer, hypoalbumin, mortality rate.

“Horseshoe Flap” as an option for defect closure in MRM operation

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Background: LABC (Locally Advance Breast Cancer) with large tumor size, could produce wide defect after MRM (Modified Radical Mastectomy). It might be difficult in determining tumor-free margin therefore we might leave extensive defect of operating area or caused local recurrent cases. The extensive defect often cannot be closed by primary manner so that it requires reconstruction. Many surgical techniques have been developed to cover those including LD (Latisimus Dorsi) Flap, TRAM (Transverse Rectus Abdominis Muscle) Flap, Local flap and Free Flap, which are often complicated, take long time and need further positioning and leave secondary defect that need skin graft. Therefore we proposed new technique that was easier in order to close those defects.

Case Description: In these cases, local advancement “horseshoe flap” was used to cover a broad defect in MRM. These techniques relied on direct mapping of perforator branches without need for imaging or doppler assistance. And by these techniques broad defects might be closed primarily without leaving a secondary defect. Furthermore, by doing local advancement “horseshoe flap” patients only need single positioning and the procedure was shorter and easier. On the other hand, vascular donor could be detected using direct mapping of SEA (Superficial Epigastric Artery), AIA (Anterior Intercostal Artery), and LIA (Lateral Intercostal Artery). Wound care would be easier because it did not leave surgical incision elsewhere. We reported 12 patients who had horseshoe flap for MRM defect closure and the wound was evaluated on the first, fourth and tenth day. Ten of them showed good result and two patients had marginal necrosis. Those who had marginal necrosis, necromy and reconstruction were then performed and satisfactory results were obtained.

Conclusion: The “horseshoe flap” technique was an option for broad defect closure in MRM surgery. They resulted in less postoperative complications and satisfying results.

Keywords: LABC, extensive defect, horseshoe flap
The early result of onco-reconstructive microsurgery in surgical oncology cases

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Background: As a referral hospital for cancer cases, Dharmais Cancer Hospital treats many complex surgical oncology cases. Most of the surgeries involve wide excision with large defect which causes a delay in adjuvant treatment and decreasing quality of life. To overcome this problem we perform onco-reconstructive microsurgery (ORM) to achieve free margin resection and also a better quality of life after cancer surgery.

Method: This was a case series study, which the data were collected from surgical oncology medical record from January until June 2019.

Result: There was 29 patient who underwent ORM with mean age 48.5 (17.2) years, with 21 (72.4%) female and 8 (27.6%) male. Most of the tumor were located in head and neck 21 (72.4%), lower extremities 3 (10.3%), upper extremities 2 (6.9%), breast 2 (6.9%), and abdomen 1 (3.4%). Most of reconstruction were Superficial Circumflex Iliac Perforator Free Flap (SCIP) 15 (51.7%), Anterolateral Thigh Free Flap (ALT) 8 (27.6%), Fibular Free Flap (FFF) 3 (10.3%), Latissimus Dorsi Free Flap (LD) 1 (3.4%), Radial Forearm Free Flap (RAF) 1 (3.4%), and Deep Inferior Epigastric Artery Perforator (DIEP) 1 (3.4%). One patient died and the others survive still receiving adjuvant therapy. We encountered 2 (14%) cases with flap necrosis. Within a short period of follow up time mean 11.3 (1.2) weeks there was no tumor recurrence.

Conclusion: ORM is recommended in complex surgical oncology cases to achieve clean resection and improving quality of life of the patient. But its need longer follows up time to confirm this result.

Keywords: oncology, surgery, outcome, deconstructive.

An advanced gastric cancer with peritoneal dissemination: complete response achieved with FLOT combination chemotherapy

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Background: Although chemotherapy is the first recommended treatment of metastatic gastric cancer, a complete response is a rare event. The clinical response rate reported for chemotherapy for unresectable advanced or recurrent gastric cancer is 28-54%. And the prognosis of stage IV gastric cancer is unfavorable because only 15% chance of survival in 5 years.

Case description: A 56-year-old male was diagnosed as gastric cancer with gastric outlet obstruction, large bowel obstruction and peritoneal dissemination. The patient underwent gastrojejunostomy bypass and ileostomy diversion, and chemotherapy with FLOT (5FU, leucovorin, oxaliplatin, docetaxel) regimen subsequently. After 6 courses of chemotherapy, a computed tomography showed disappearance of gastric mass and disseminated nodules in pelvic cavity, and no visible lesion in gastric mucosa, suggesting clinical complete response.

Conclusion: A stage IV gastric cancer could achieved clinical complete response by chemotherapy with FLOT regimen.

Keywords: advanced gastric cancer, complete response.

Correlation between expression of caveolin 1 with the characteristic of clinicopathology in breast cancer at Sanglah General Hospital

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Introduction: Breast cancer is still one of the current health problems in the world and Indonesia. Globally, breast cancer is the second most common cancer and is also the most common cancer in women. But the prognosis of breast cancer patients is still difficult to predict using conventional methods so that a new, more representative method is needed. Caveolin-1 is a positive prognostic factor in breast cancer, but there have been no studies linking Caveolin-1 expression with clinicopathological characteristics such as clinical stage,
ABSTRACT

Correlation between age and squamous cell cancer incidence at Dr. Sardjito Central General Hospital, Yogyakarta

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Background: Squamous cell cancer (SCC) is an uncontrolled growth of abnormal cells arising in squamous cells, most of which consist of the epidermis. This non-melanoma skin cancer is the most common cancer in the United States, with more than 1.3 million cases estimated to occur in 2001. Age-adjusted incidence for white people is 100 to 150 per 100,000 people per year, and age-specific incidence in people over 75 years old is about 10 times higher compared to under the age of 75 years old. Based on the background described above, it is known that the incidence of SCC in the world increases with age. The correlation between age and the incidence of SCC in Indonesia is unknown, therefore it is important to conduct research on the correlation between age and the incidence of SCC in Indonesia, especially in the Dr. Sardjito Central General Hospital, Yogyakarta. This study aims to find out the correlation between age and the incidence of SCC in Dr. Sardjito Central General Hospital, Yogyakarta.

Methods: This research is a quantitative study with a cross-sectional design. This study took data on squamous cell cancer patients in 2015-2017. All data analysed using Spearman correlation, with p-value < 0.05 means that the results are significant.

Results: The age range of 41-50 years is most affected by SCC, with the proportion of 30.77%, the age group 51-60 years and 71-80 years at 19.23%, age group 61-70 years at 15.38%, age group 31-40 years at 7.69%, and age group 21-30 years and 81-90 years at 3.85%. After being analysed with the Spearman correlation, it was shown that there was no significant correlation between age and incidence in breast cancer patients (p = 0.877).

Conclusion: There is no significant correlation between age and the incidence of squamous cell cancer in Dr. Sardjito Central General Hospital, Yogyakarta.

Keywords: Squamous cell cancer, age

The relationship between prognostic factors and survival with the quality of life among breast cancer patients undergoing therapy at Dr. Sardjito Hospital

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Background: Breast cancer has the highest incidence of cancer in women. In Indonesia, breast cancer is the most cancer that is handled in Indonesian hospitals. Clinical prognosis factors (tumor size, regional / axillary lymph node involvement, number of axillary lymph node involvement, and presence or absence of distant metastases) and other prognostic factors (histology type, degree of differentiation, mitotic index, hormonal status, and HER-2 expression) are very important in the recurrence and survival of breast cancer patients. The time when someone is diagnosed with breast cancer, administration of neoadjuvant chemotherapy, and surgery will affect the quality of life of the patient.

Methods: A descriptive analytic cross-sectional study design in breast cancer patients treated according to the Surgical Oncology protocol of Dr. Sardjito Hospital, Yogyakarta and fulfilled the research inclusion criteria. The EORTC QLQ-C30 and QLQ-BR23 questionnaires were used to assess the quality of life of the research subjects. Data management is done manually and computerized. Univariate analysis was carried out to determine the characteristics and description of the data. Bivariate analysis to determine the strength of the relationship between two variables including independent variables and dependent variables. Pearson test is used if the data distribution is normal or the Spearman test if the data distribution is not normal.

Results: There were 51 people who participated in this study. Tumor stage and tumor size have a significant relationship especially with symptoms complained by the research subjects (p <0.05) There is no relationship between lymph node involvement, the presence of hormone receptors (ER / PR), the presence of HER-2 / NEU receptors, and survival with quality of life (symptoms, functional and global health) breast cancer patients (P>0.05) treated according to the Surgical Oncology guidelines of Dr. Sardjito Hospital.

Conclusion: Tumor stage and tumor size have a significant relationship as prognostic factors and survival with the quality of life among breast cancer patients undergoing therapy at Dr. Sardjito Hospital.

Keywords: breast cancer, quality of life, EORTC QLQ-C30, EORTC QLQ-BR23
Correlation Rotterdam CT score with outcome post craniotomy moderate head injury in Zainoel Abidin Banda Aceh General Hospital

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Background: CT scan is the standard instrument in the diagnostic and prognosis of moderate head injury patients. Evaluation of CT scan can be through Rotterdam scores that assess basal cisterna status, midline shift, epidural lesions, subarachnoid or intracerebral bleeding associated with mortality status. In addition, there is a Glasgow outcome scale (GOS) that useful for assessing mortality and vegetative status of head injury patients. This study aims to find out correlation and prediction the Rotterdam score and the outcome based on GOS post-craniotomy with moderate head injury.

Method: Prospective cohort study of patients with moderate head injury who came to dr. Zainoel Abidin Banda Aceh General Hospital. Patient get CT scan for diagnostic and evaluation Rotterdam score then patient underwent a craniotomy surgery, after surgery a Glasgow outcome scale evaluation was performed to determine outcome. Data analysis using Spearman correlation test and logistic regression.

Results: During January 1 to April 30, 2019 there were 40 moderate head injury patients who received a Rotterdam evaluation and craniotomy surgery as a research subject, male sex 67.5% while women 32.5% with an average age of 32, 85 (SD ± 12.98) years old. Patients the most vegetative life status (GOS1) mostly has Rotterdam score 2 (32.5%) and score 3 (32.5%). Meanwhile, patients who died were in the score of 3 (12.5%) and GOS 4 (10%). Spearman correlation analysis found a significant correlation Rotterdam scores and GOS patients with moderate correlation strength (P = 0.00 and R square 0.555). The higher score will increase 3.444 times the risk of the outcome of death.

Conclusion: Rotterdam score has correlation with GOS, the higher the Rotterdam score will increase the risk of the outcome of mortality.

Keywords: Rotterdam score, Glasgow Outcome Scale, moderate head injury

Penetrating brain injury: a case report of 17 years old man with a penetrating brain injury due to fish bow

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Background: Penetrating Brain Injury is part of head trauma. Penetrating Traumatic Brain Injury (PTBI) is the most deadly head injury. About 70-90% of these victims died before arriving at the hospital, and 50% died during resuscitation efforts at the Emergency Room. These injuries are the result of the energy transferred by objects to the human skull and towards the brain.

Case Description: A 17-year-old male patient complained of pain due to a fish bow stuck in the frontal region with a 0.3 cm wound diameter. CT scan showed foreign body with metal density, penetrated the frontal lobe on the midline side with a depth of 6 mm, through a 0.3 cm defect on the anterior and posterior wall right frontal sinus. The patient came without neurological deficits and has been through the trepanation, craniectomy and evacuation of the foreign body.

Conclusion: Treatment in traumatic brain injury is performed less than 24 hours to prevent infection and damage to the brain parenchyma. An accurate diagnostic process is needed to determine the need of operation. CT scan with 3D reconstruction is chosen as a diagnostic tool from this case. Craniectomy is performed to evaluate and prevent damage and injury of the vascular during the evacuation process.

Keywords: Foreign bodies, Penetrating Traumatic Brain Injury, Trepanation, Craniectomy.
Case study evaluation of fracture of children in Orthopaedic And Traumatology Division in Dr. Wahidin Sudirohusodo Central General Hospital Makassar period January 2016 to December 2017

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Background: Study conducted by Indonesian health government found that the highest contributor of fractures in Indonesia was children under 19 years old. Fractures in children can cause a long term disability and decreasing quality of life in every people involved in. Factors that affect fractures incidences must be identified so that we can create prevention management to prevent and reduce fractures of children. The purpose of this study was to evaluate fractures pattern of children in orthopedic and traumatology in Dr. Wahidin Sudirohusodo Central General Hospital Makassar.

Methods: Children aged 18 and below who attended orthopedic in-patient ward were enrolled for the study. This study was done by collecting patient medical record data. The prevalence and patterns of fractures were reviewed for details, such as, gender, age, causes, location, types, single/multiple, site, causes, and treatment of fractures were recorded.

Results: There were 152 children in the study, and 72.3% were boys. Most common occur at the 12-18 years age group (92.8%), dominated by closed fractures over open fractures (63.6%), most of them were presented as a single fracture (72.3%), while distal radius/ulna was the most common fracture sites in this study and most often caused by traffic accidents (73.6%). Consequently, the location in which fractures were most prevalent was the street (76.9%). Most patients underwent surgery for their treatment (84.8%).

Conclusion: The present study described the prevalence, types, patterns, and causes of fractures in children. The results of the present study may be useful in the planning of management and prevention of fractures in children.

Keywords: fracture, child, epidemiology, patterns.

Functional outcome in short term follow up after total knee replacement in Prof. R. D. Kandou Hospital, Manado, Indonesia

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Background: The percentage of knee osteoarthritis incidence in Indonesia is quite high, 15.5% in men and 12.7% in women. As much as 98% knee osteoarthritis patients are performed total knee replacement (TKR). Besides the effectiveness of TKR surgery to overcome the knee osteoarthritis, previous studies showed that 10% to 34% patients reported unfavorable pain outcomes at between 3 months and 5 years after TKR surgery. There are no reports in Manado, Indonesia how the quality of life of patients after undergoing TKR surgery. Therefore, this research aimed to analyze the degree of knee function and the quality of life of patients after performed total knee replacement in Prof Dr. R. D. Kandou Hotpital Manado in the period of January-December 2018.

Methods: Before surgery and 3-month post-surgery, the patients (n=32) were evaluated with Knee Society Score questionnaire. The collected data that consisted of knee score and knee function score were analyzed with paired t-test using SPSS 23.

Results: Most of the patients are in elderly category of age, and this disease showed a higher prevalence in women than in men. Patients showed improvement in the degree of pain, stability, shape, and knee function (p<0.0001) at 3-month post-surgery. Moreover, as many as 21.87% of patients still experience pain 3-month post-surgery, this is thought to be caused by lack of physical activity.

Conclusions: The healing of knee osteoarthritis is not only affected by total knee replacement surgery, but also by postoperatively physical activity. Both of these actions can improve the quality of life and restore mobility of patients.

Keywords: osteoarthritis, knee society score, knee function score, knee score.

Vertebra column manipulation on serial case of adolescent idiopathic scoliosis

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Background: Scoliosis is defined as a curvature of the spine, diagnosed by the presence of a curvature greater than 10° measured by a Cobb angle on a plain radiograph. Idiopathic Scoliosis is the most common spinal deformity that develops in otherwise healthy children. The subtypes of scoliosis are based on the age of the child at presentation. Adolescent Idiopathic Scoliosis (AIS) by definition occurs in children over the age of 10 years until skeletal maturity.

Case: This study presents the results of scoliosis correction in serial case of AIS and compares the use of Vertebra Column Manipulation (VCM) and Non-VCM. Female 12 – 14 years-old with AIS case from 2017 – 2019, presented to the clinic with musculoskeletal back pain, lung problem, limping gait with shortness of breathing regarding progression the curve. VCM and non-VCM were performed with pedicle screw fixation, VCM combined with direct vertebral rotation (DVR) provides powerful derotational correction.

Conclusion: Curves greater than 50 degrees according to Cobb angle. After performed VCM, the magnitude of the scoliotic curve decreases to 10°. VCM reduces significantly rotation, translation, bump reduced and segmental correction of the spine. The comparison between VCM tools with non VCM tools shows reduction on VCM more than 70%.

Keywords: vertebra column manipulation, adolescent idiopathic scoliosis.

Outcome comparison of callus formation in fresh closed fracture and neglected closed fracture of femoral managed by open reduction internal fixation with plate and screw in Dr. Zaionel Abidin District Hospital of Banda Aceh

Epidemiology of pediatric fractures presenting to emergency departments in Moewardi General Hospital

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Background: Fractures in children are in important as public issues and frequent cases in emergency room visits. The purpose of this study was to identify the most frequent pediatric fractures in Moewardi General Hospital since January 1⁰ 2017 - January 1⁰ 2019.

Methods: The data was collected from Moewardi General Hospital medical record between January 1⁰ 2017 until January 1⁰ 2019. The patient with age range 1 y.o. - 18 y.o

Results: There are 97 cases of pediatric fractures between Januari 1⁰ 2017-Januari 1⁰ 2019. Motovehicle accident is the most common MOI (67%). The peak of accident range in age 10-18 y.o. 87% of patient undergo surgery procedure meanwhile 13 % non-surgical procedure. Femur fractures is the most common pediatric fracture case (39%) with peak within ages 11-15 y.o. And the most common fracture pattern is transverse fracture. Meanwhile greentick fracture only 3 cases in 2 years. 15% of cases accompanied with other trauma such as maxillofacial and brain trauma.

Conclusion: Pediatric Fractures represent a significant proportion of pediatric emergency department visit in Moewardi General Hospital. Children between 10-18 y.o have the highest risk of having fractures. Most pediatrics fractures in Moewardi General hospital need hospitalization and observation because they present with other trauma

Keywords: Pediatric, fractures, epidemiology
ABSTRACT

Hirschsprung disease: case report

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Background: Hirschsprung’s disease is characterized by a lack of enteric nervous system ganglion cells in a variable extent of distal bowel. It is the most common congenital bowel motility disorder, and affected neonates usually present with distal intestinal obstruction in the first few days of life.

Case: 7 years old patient with complaint of abdominal pain and enlarged of abdomen. Patient also complained could not defecate, fart normally. Patient born normally in a health center with 2900 grams, meconium delivered in the third day after born. Abdomen was distended without darm contour and darm stiefung, bowel sounds increased, percussion was dullness in all parts of the abdomen, and tenderness throughout the abdomen, no defense muscular. From rectal toucher, muscle tone of sphincter ani was normal, no mass, rectal ampule not collapse but full of feces. Rectal washout and laparotomy colostomy was performed and referred to Pediatric surgery for further treatment.

Conclusions: Hirschsprung with intestinal obstruction must be relieved. In many patients, this can be achieved by regular adequate rectal washouts with warm saline. If relief from obstruction is obtained by this means, it could be continued with early definitive surgery and prepare to refer to pediatric surgery to performed corrective surgery.

Keywords: Hirschsprung, congenital, Pediatric surgery.

Characteristics of hernia patients in the pediatric population at Hasan Sadikin General Hospital in the period of 2016-2018

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Introduction: Hernias in children are prevalent cases and have a good prognosis if a surgical procedure is performed. The study aims to determine the characteristics of hernia patients in the pediatric population, found at Hasan Sadikin General Hospital, Bandung.

Methods: This study was a descriptive study with a cross sectional method. Data were collected from medical records between 1 January 2016 until 31 December 2018 at Dr. Hasan Sadikin General Hospital, Bandung. The Data obtained are gender, age, location of hernia, and type of hernia.

Results: Among 137 patients, 109 (79.56%) were males and 28 (20.44%) were females. Hernias were detected most commonly at the range of age 0-5 years (79.57%), with the highest detections occurring at age range 0-1 years (38.69%), the average age is 2.85 years (range; 0-18 years). Based on its location, the majority of hernias occurred on one side (unilateral) in 124 patients (90.51%), while in 13 patients (9.49%) hernias occurred on both sides (bilateral). Based on its location and gender, the majority of hernias occurred only on one side (unilateral) in both sexes, which were found in 99 male patients (90.83%) and 25 female patients (89.29%). Based on the types of hernia, inguinal hernias had the highest number which was found in 130 patients (94.89%), while abdominal hernias were found in 4 patients (2.90%), umbilical hernias in 2 patients (1.45%) and diaphragmatic hernia in 1 patient (0.76%)

Conclusion: Hernia is one of the most common conditions for external genitalia abnormalities in the pediatric population. Inguinal hernia surgery is one of the surgical procedures that are mostly carried out in the pediatric population. The peak incidence of hernia in children occurs at the age of 0-5 years, and more prevalent in the male population compared to female population. Hernias appear more often on one side, compared to on both sides, this occurs both in the population of boys and girls.

Keywords: Hernia, Inguinal Hernia, Epidemiology, Pediatrics.

The role of c-reactive protein (CRP) for relapse monitoring of pediatric-onset inflammatory bowel diseases (PIBD) in primary health care

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Background: The incidence rate of pediatric-onset inflammatory bowel diseases (PIBD) in Asia is increasing in the last two decades. There are numerous available modalities used to monitor PIBD (with endoscopic examination as its gold standard), but most of them are not applicable in primary health care setting. C-reactive protein (CRP) is a non-specific biomarker found in PIBD. This study aims to evaluate the role of CRP in PIBD monitoring in primary health care.

Methods: CRP level was evaluated retrospectively in PIBD children diagnosed prior this study and showed no symptom in February 2018 - February 2019. Referral had been given to those whose CRP level was above our cut-off and persisted in 3 months. Relapse was evaluated using clinical pediatric Crohn’s disease activity index (PCDAI) and pediatric ulcerative colitis index (PUCAI) and endoscopic scoring.

Results: We identified 32 patients which consisted of, 25 (78%) Crohn’s disease (CD) and 7 (22%) Ulcerative Colitis (UC) with mean age 12.6±3.7. Lowest CRP level was 3 mg/L whereas the highest was 189 mg/L. In CD, there was significant correlation between the increasing CRP level with both clinical relapse and endoscopic mucosal inflammation. On the other hand, significant correlation was found in CRP level and clinical relapse in UC, but not when related to endoscopic mucosal inflammation.

Conclusion: We found a good correlation between CRP level with both clinical and endoscopic relapse in CD, but only with clinical relapse in UC. CRP might be utilized as PIBD monitoring tools in primary health care.

Keywords: pediatric-onset inflammatory bowel disease, C-reactive protein, Crohn’s disease, ulcerative colitis, biomarkers.

Malignant peripheral nerve sheath tumor of penile: a case report and review of literature

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Introduction: Malignant schwannoma (malignant peripheral nerve sheath...
tumor, MPNST) is a rare high-grade tumor arising from peripheral nerves. **Case:** We report the case of a 2-year-old male who presented with a non-tender lesion on his penis. The lesion was excised and a penile reconstruction was performed. Histology of the lesion revealed a high-grade spindle cell sarcoma. Immunohistochemistry showed the tumor cells to be positive for S100 and Vimentin. A diagnosis of intermediate grade malignant peripheral nerve sheath tumor was made. The patient underwent excision of mass and penile reconstruction and planned for radiotherapy and further excision. **Conclusion:** Malignant schwannoma is rare in children and rarely reported in the penis in the pediatric age group without evidence of neurofibromatosis. **Keywords:** penile, schwannoma, neurofibromatosis

**Mesenteric teratoma: a case report**

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**Introduction:** Teratomas are uncommon tumors with malignant lesions accounting for only 3% of childhood cancers. Teratomas are more common in females (80%), and although they are seen in all age groups in childhood, the majority of cases are seen in newborns. Teratomas occur as midline or parasagittal lesions with sacrococcygeal teratomas accounting for the largest single group (57%), followed by gonadal (29%), mediastinal (7%), cervical (3%), retroperitoneal (4%), and intracranial (3%) sites. Other rare locations have also been described, including gastric, liver, tonsil, palate, and body wall. There is no other neoplasm that exhibits such a great diversity in site of presentation, histologic appearance, and clinical behavior. **Case presentation:** A 4-month-old girl with palpable abdominal mass was referred to our pediatric surgery clinic. Abdominal CT scan with intravenous contrast revealed a well marginated oval-shaped mass of heterogeneous density. During surgery, an oval tumor that arose from the ileocecal mesentery was enucleated. The pathological diagnosis was immature teratoma of the mesentery. **Conclusion:** Although mesenteric teratomas are rare, with no pathognomonic symptoms, these tumors should be considered in the differential diagnosis of children with intraperitoneal abdominal masses. The prognosis of mesenteric teratoma is considered favorable. Outcomes from primary resection remain curative in the cases of all mature and the majority of immature tumors. **Keywords:** Teratoma, Germ Cell Tumors, Mesentery, Abdominal Mass

**Adenoma cauda of the pancreas accompanied acute hemorrhage pancreatitis on child: a case report**

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**Background:** Pancreatic carcinoma is found highest at the age of 50-60 years. This case is rarely found in children. Pancreatic tumors of about 10%-15% occur in cauda, tumors in the cauda pancreas do not suppress the bile ducts so asymptomatic for some time. The initial symptoms are not specific so it is often diagnosed late. The patient's complaint depends on the location, size and spread of pancreatic tumors. This case is expected to be a picture for cases of pancreatic adenoma in children **Case:** 15-year-old child with complaints of a lump in the left abdomen with complaints of flatulence and nausea, ultrasound examination in the left suprarenal region is an isoechoic mass, and radiological CT-scan with contrast is a solid picture of pseudopapillary pancreatic tumor **Conclusions:** In children, the differential diagnosis of benign cystic pancreatic lesions includes pancreatic pseudocysts, congenital or acquired cysts, and cystadenomas. The pseudocyst pancreas is the most common and usually develops after abdominal trauma or pancreatitis. **Keyword:** Pancreatic tumor, cauda pancreas, cystadenoma.

**The use of transanastomotic tube in surgical management of congenital duodenal obstruction of the newborn: case series**

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**Backgrounds:** Prolonged starvation is a significant concern in post-operative management of congenital duodenal obstruction. Massive dilatation of proximal segment would lead to caliber discrepancy and hypomotility, thus delaying enteral feeding. Transanastomotic tube is an option to deliver early enteral feeding after surgical correction. Study aims to evaluate the effectiveness and the safety of transanastomotic tube in surgical management of congenital duodenal obstruction. **Methods:** We collected cases of congenital duodenal obstruction of the newborn that is surgically corrected and managed with transanastomotic tube from January 2016 until December 2018 at Cipto Mangunkusumo General Hospital and Fatmawati General Hospital. **Result:** Ten cases were collected, with the mean of gestational age of 30.4 weeks (SD ± 2.12), with mean of body weight of 2.571 g (SD ± 392). Seventy percent of the cases accompanied by other anomalies. Enteral nutrition was introduced immediately after surgery. The median time of initiation of oral nutrition was 13 days (3-21), and the patients were adequately fed in 19.5 days (13-37). The average length of stay was 24.5 days (16-40 days). One case had a complication requiring surgery. Mortality happened in 2 cases due to sepsis. **Conclusion:** Transanastomotic tube is an option to deliver early enteral feeding after surgical correction of congenital duodenal obstruction. **Keywords:** congenital duodenal obstruction, transanastomotic tube, early enteral feeding, case series
Amyand's hernia in children: 5 years experience

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Background: Amyand's hernia is a rare hernia which presence of the vermiform appendix inside a hernia sac. It sometimes presents as acute appendicitis inside the sac in incarcerated hernia among 0.08-0.13%, and appendix without inflammation can be found 1%. The study aims to describe the management and characteristics of amyand's hernia in children.

Methods: Data from December 2014 to December 2018 in were retrospective analysis of clinical data of their patients with Amyand's hernia was managed 10 patients on our pediatric surgery service.

Results: From 10 patients with Amyand's hernia all the patients were boys with median age 3.5 years old (range of 4 days – 7 years). In 8 cases, the appendix was found inside an incarcerated right inguinal hernia. However in the 2 patients, the appendix was found inside an incarcerated left inguinal hernia.

Conclusion: This rare association of two of the most frequent diseases encountered by general surgeons, appendicitis and groin hernia. The treatment for Amyand's hernia is emergency hernia repair and appendectomy. The future study required because it is a difficult to condition which is seldom diagnosed before operation.

Keywords: Amyand's hernia, appendix, pediatric, surgery.

Congenital diaphragmatic hernia: 2 year’s experience

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Introduction: Congenital diaphragmatic hernia (CDH) is one of the common congenital anomalies with a frequency of 1/5000 live births. The management and treatment of CDH remain a challenge for pediatric surgeons.

Methods: This cross sectional study was conducted from January 2017 to May 2019 in Kandou Hospital Manado. The data consisted of sex, clinical presentations, treatments, and outcomes.

Results: From 9 patients, 6 (66.67%) of them were males, 3 (33.3%) were females, giving a male and female ratio 2:1. Clinical examination shows that 8 people (88.89%) had severe symptoms and death within 24 hours before surgical repair, and 1 person (11.11%) had mild symptoms, had respiratory assistance and stabilized, had surgical treatment and discharged from hospital with good outcomes. Mortality rates of patients with severe symptoms are 88.89%.

Conclusion: CDH with severe symptoms needs a careful protocol of respiratory assistance and needs to stabilize immediately before undergoing surgical treatment. There have been several reports of the use of standardized protocols for postnatal CDH care and ventilator management, the need to use ECMO, and surfactant therapy that resulted in improved overall survival rates. Surgical treatment still the best choices of treatment, and can be delayed until the infants are stabilized.

Keywords: protocols for respiratory assistance, congenital diaphragmatic hernia, ecmo

Hepatic vein re-anastomosis, intraoperative challenges during liver transplantation in emerging liver transplant center: a case report

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Introduction: Hepatic vein anastomosis on liver transplantation has been considered as a very important part to ensure good outflow of liver graft. We report and review a case of intraoperative challenges during hepatic vein anastomosis on pediatric living donor liver transplantation (LDLT) in Dr. Cipto Mangunkusumo Hospital, a new emerging LDLT center.

Case: Twenty months old female patient diagnosed with biliary atresia with previous Kasai surgery received left lateral liver graft from her father donor. The graft had 2 openings of left hepatic vein and superficial vein which was sutured into single orifice in the back table. Left hepatic vein liver graft was anastomosed to a new wide orifice on the recipient's IVC connecting all 3 hepatic veins. Intraoperative ultrasound showed low flow of hepatic vein after reperfusion. Reanastomosis was performed 3 times, including re-anastomosis using donor ovarian vein patch in 18 hours surgery. Postoperative complication hepatic venous outflow obstruction (HVVO) was successfully dilated with 9 mm balloon catheter on interventional radiography venoplasty procedure at postoperative day 70.

Conclusion: Hepatic vein anastomosis and prevention of HVVO should be a high priority in LDLT. In grafts with multiple hepatic veins, the use of a patch graft is recommended. Postoperative follow-up imaging and minimally invasive treatment for HVVO such as balloon venoplasty should be performed afterward.

Keywords: hepatic vein anastomosis, hepatic venous outflow obstruction, new transplant center

Gastrectomy in neonatal caused by gastric perforation: very rare case report

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Background: Gastric perforation in neonates is a rare emergency case. Its clinical manifestations presented in neonates aged 2 days until 7 days old, with progressive abdominal distention as the most prominent sign caused by pneumoperitoneum complemented with respiratory distress.

Case Report: A 2 days age male infant was consulted from Pediatric Department of Kariadi General Hospital Semarang with abdominal distention as the chief complaints since 12 hours prior. The baby was born in Bendan Hospital spontaneously from a 25th years old G1P0A0 mother with 32 weeks gestational age. He did not cry immediately. Patient was prematurely born with birth weight of 2200 gr. Physical examinations showed that the baby was lethargic, with bloated and distended abdomen, abdominal circumference of 29 cm, periumbilical and perineal erythema, hyper tympanic, loss of hepatic tone.

Keywords: gastrectomy, neonatal gastric perforation, abdominal distention
dullness, and diminishing bowel sound. X-ray examination showed thickening of bowel walls and peritoneum.

**Conclusion:** Gastric perforation in neonates is a rare emergency case. Perforation may be caused by ischemic, traumatic, or spontaneous mechanisms. Clinical manifestations, such as pneumoperitoneum and metabolic acidosis, may be found. Exploratory laparotomy is a diagnostic and definitive measurement, although other alternatives have been proven successful in other settings. This disease has a high mortality rate, which can be suppressed by immediate management.

**Keyword:** Gastric perforation, pneumoperitoneum, metabolic acidosis.

**Laboratory risk indicator for necrotizing fasciitis score as a predictor of necrosis and perforation in cases of pediatric appendicitis in Haji Adam Malik General Hospital Medan, Indonesia**

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**Background:** LRINEC (Laboratory Risk Indicator for Necrotizing Fasciitis) Score has been used as a tool in assessing the risk of necrotizing fasciitis in cases of soft tissue infection. This study aims to determine the LRINEC Score as a predictor of necrosis and perforation in cases of pediatric appendicitis in Haji Adam Malik General Hospital Medan.

**Methods:** The study was prospective with patient data collected from January 2014 to December 2014. Patient data were collected including age, LRINEC Score, and postoperative histopathology.

**Results:** Thirty patients with acute appendicitis have a strong correlation of LRINEC Score with operating findings, Pearson correlation coefficient (r) of 0.551 and p-value 0.002. With the LRINEC score cutoff ≥ 9 it has a positive predictive value 78.5% (95% CI) and a negative predictive value 62.5% (95% CI). The sensitivity is 64.7% and the specificity is 76.9%.

**Conclusion:** LRINEC can be utilized in the management of preoperative and postoperative appendicitis patients in children.

**Keywords:** Appendicitis, Children, Laboratory Risk Indicator for Necrotizing Fasciitis (LRINEC) Score, Prognostic.

**Correlation of pediatric appendicitis score on prognostics of pediatric appendicitis cases in Haji Adam Malik General Hospital Medan, Indonesia**

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**Background:** Pediatric Appendicitis Score (PAS) has long been used as a tool for assessing cases of acute abdomen in children. Pediatric Surgery Division Haji Adam Malik General Hospital has used this scoring system as part of a clinical pathway in diagnosing appendicitis in children. This study aims to determine the correlation of Pediatric Appendicitis Score to prognostic of pediatric appendicitis cases in Haji Adam Malik Hospital Medan.

**Methods:** The study was prospective in November 2016 until April 2017. Patient data were collected including age, PAS, surgical findings, postoperative complications and mortality.

**Results:** Twenty-six patients with acute appendicitis were recorded. The strong correlation between pediatric appendicitis score on the duration of hospitalized (r=0.465), surgery findings (r=0.522), and the post-operative complication (r=0.494). There was no postoperative mortality case in the study sample.

**Conclusion:** There is a correlation between Pediatric Appendicitis Score to prognostic of pediatric appendicitis cases. It can be utilized in preoperative and postoperative management of appendicitis in children.

**Keywords:** appendicitis, pediatric, pediatric appendicitis score, prognostic.

**Spontaneous gastric perforation in neonatal: case report**

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**Background:** Neonatal gastric perforation (NGP) estimated for around 7% of all gastrointestinal perforation in neonates, and has a poor prognosis with a high mortality rate. Neonatal gastric perforation is a rare case, but have a serious consequences and it is a potentially life-threatening case if it misdiagnosed. We report a case of neonatal gastric perforation managed by early resuscitation and primary repair of the gaster.

**Case report:** A three days old baby weight of 2605 gram was admitted with chief complaint of abdominal distention. Examination revealed defense muscular, liver dullness on percussion is off, and bowel sounds were absent. Abdominal X-ray three position: anteroposterior, lateral, and left lateral decubitus, revealed huge free intraperitoneal air. We conclude that diagnosis as perforation peritonitis.

**Conclusions:** Gastric perforation is a surgical emergency. The clinical manifestation includes: abdominal pain, dehydration, abdominal distention, vomiting, sign of peritonitis and radiologic imaging with evidence of pneumoperitoneum is a common radiologic finding in this case. Surgical repair of gastric perforation using two-layer closure. Postoperative vigorous supportive therapy coupled with the use of broad-spectrum administered intravenously is necessary.

**Keywords:** perforation, gaster, spontaneous.

**A case report: Amyand’s Hernia with appendicitis in toddler**

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**Background:** Amyand’s hernia is a rare occurrence in children. The clinical manifestation usually involves different symptoms, such as abdominal pain, vomiting, signs of peritonitis, and ileus. Appendicitis is a common disease in children characterized by abdominal pain, vomiting, fever, and leukocytosis. The combination of these two diseases is very rare and complicated.

**Case report:** A 2-year-old boy admitted to the hospital with chief complaint of abdominal pain and vomiting. On physical examination, he had a distended abdomen with decreased bowel sounds. His laboratory findings showed a leukocytosis. An ultrasound scan showed a mass in the right lower quadrant. An exploratory laparotomy was performed, and a diagnosis of Amyand’s hernia with appendicitis was made.

**Conclusion:** The combination of Amyand’s hernia and appendicitis is rare and can be challenging to diagnose. Early diagnosis and treatment are crucial to prevent complications. This case report highlights the importance of considering both conditions in different scenarios.
**ABSTRACT**

**Background:** Amyand’s hernia is a very rare type of hernia. Found in 1735 by Claudius Amyand. Diagnosis of Amyand’s hernia remains primarily incidental during surgery. Thus the preoperative diagnosis is still challenging to doctors and surgeons, particularly in health facilities with limited diagnostic procedures.

**Case Description:** We present a case of a year-and-8-months-old toddler with type 2, right-sided Amyand’s hernia. The patient came with his mother to emergency unit of Karitas Hospital with swollen, pain and tenderness in right scrotum. According to his mother, the scrotum had swollen for 4 months before he came to hospital. We decided to manage the patient to the Operating Room and made several procedures included herniotomy and appendectomy due to inflamed vermiform appendix within the inguinal hernia. The patient discharged after 3 days post-surgical treatment with no complications.

**Conclusion:** This case report highlights Amyand’s Hernia, defined as the presence of the vermiform appendix within the inguinal hernia. We discussed clinical symptoms, classification, diagnostic tools and management of Amyand’s Hernia especially in rural area.

**Keywords:** Amyand’s hernia, inguinal hernia, appendicitis.

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**Chronic suppurative appendicitis in neonates with intestinal malrotation: a case report**

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**Background:** Appendicitis in neonates is a very rare case reported. The non-specific clinical sign and symptom make a low index of suspicion. Most of cases are found incidentally in operation. The high of mortality rate, especially in perforated appendicitis provides a challenge in making a diagnosis to reduce the risk of complications.

**Case Report:** Six days old boy neonate, had a complaint of abdominal distention and vomiting for 4 days old. This complaints followed by weakness and hypoglycemia since the age of 1 day. Physical examination revealed abdominal distension and decreased bowel sounds on auscultation. The patient then performs an orogastric tube insertion with the production of greenish liquid. Plain abdominal photo examination provides a picture of gastric distention and decreased bowel sounds on auscultation. The patient then performs an orogastric tube insertion with the production of greenish liquid.

**Conclusion:** Chronic suppurative appendicitis is a very rare case reported. The non-specific clinical sign and symptom require strong clinical suspicion on making a diagnosis to avoid the risk of complications.

**Keywords:** appendicitis, Ladd’s procedure, intestinal malrotation

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**Cloacal type anorectal malformation in controlled patients after 37 years of colostomy diversion: a case report**

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**Background:** Atresia anal, now known as anorectal malformation (MAR), is a congenital disorder that shows a condition without anus or with an imperfect anus. Anorectal malformation is a disease that is often found in pediatric surgery patients. Anorectal malformation is one of the causes of obstruction of fecal discharge in the anus and causes obstructive ileus in infants. Especially for cloacal type defects in women can be performed colostomy, vaginectomy and diverted urine if necessary (after older children 1 - 1.5 years). Cases of cloaca type congenital malformations that have been allowed to occur for 37 years are very rare cases. Therefore, this case is a very rare case so it is interesting to be appointed and discussed.

**Case:** A woman, 37 years old, came to the pediatric surgery department of Dr. Hasan Sadikin General Hospital with a preoperative diagnosis: a post colostomy cloacal anorectal malformation; vaginal agenesis; urinary retention et causa colpolithiasis. The symptoms are the patient do not have an anal opening. Defecation can through a hole under the vagina. Complaints are not accompanied by an enlarged abdomen, no fever, no hypersalivation, no symptoms of blue lips when crying. Then an operation was made to make colostomy while the age of 2 weeks, since then the patient defecated through the stoma. The patient had

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been planned to have surgery by a pediatric surgeon at the age of > 1 year but no room was obtained so the patient delayed the surgery plan. The patient then controls to the digestive surgery department after aged 37 years. Therapy is carried out in the form of joint surgery between pediatric surgery, obstetric-gynecologist, digestive surgery, and urology surgery. The surgical procedure is hysterotomy; vaginoplasty; evacuation of colpolithiasis; ureterocystoscopy; cystostomy; ureterostomy; urethrostomy; stoma relocation; posterosagittal pull anorectoplasty; ureterovesicocutan. 

Conclusion: This case opens a new gap in the field of science in handling anorectal malformations in adulthood by maintaining a colostomy for 37 years. Do you need anorectal malformation repair done by the age of infants and children or can it be done in adulthood? Associated with patient safety and specialist doctors in the era of National Health Insurance (JKI).

Keywords: anorectal malformation (mar), stoma, colpolithiasis, urine retention.

Evaluation of invagination case at Dr. Wahidin Sudirohusodo Hospital from January 2013 - December, 2017

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Background: Invagination is the most common cause of acute intestinal obstruction in young children characterized by the proximal part of the intestine (intussuscept) slides into distal part of the intestine (intussusception) ends with strangulated obstruction. This study aims to know the number of invagination cases in Dr. Wahidin Sudirohusodo hospital, the cases distribution.

Methods: From 2013 to 2017, we experienced a total of 33 pediatric patients (from 0 to>6 years old) hospitalized with diagnosis of bowel invagination. The clinical records included: sex, age, predisposition factors, main symptom, duration of symptom until came to hospital, classification, management and surgery outcome were reviewed.

Results: Of the 33 pediatric patients, we found that the greatest number of cases was 2017 (9 cases) and the lowest was 2014 (5 cases), boys was higher (24 cases) and 0-6 months was the most common age (11 cases), the most common predisposition factor was diarrhea (18 cases) and red current jelly stool for chief complain (17 cases). Duration of symptom to ER was 3 days (9 cases), ileocolic was the most type (15 cases). Anastomose resection count for 21 cases and 27 patient go out with a good condition.

Conclusion: Age 0-11 months, boys, diarrhea, presence of red current jelly stool, symptom duration (3 days) are the most common factor influencing invagination in Dr. Wahidin Sudirohusodo hospital. Anastomose resection had a good prognosis.

Keywords: Invaginasi, Hospital

Plastic and Reconstructive Surgery

Best combination for the treatment of triamcinolone acetonide and 5-fluorouracil on cell migration and synthesis of TGF-β on fibroblast keloid

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Background: Keloids are benign fibroproliferative dermis tumors found only in humans, characterized by growth of scar tissue that exceeds the original wound limit. Excessive fibroblast proliferation in keloids is influenced by Transforming Growth Factor-Beta (TGF-β) which plays a role in accelerating mitogenesis of fibroblasts, migration of fibroblasts, stimulating the formation of collagen, elastin, and fibronectin. Management with a combination of TAC and 5-FU injection gives better results than the administration of a single TAC or 5-FU by intralesional injection. The study aims to find out the best combination of TAC and 5-FU injection to inhibit cell migration and TGF-β synthesis in keloid fibroblasts.

Method: An in vitro study using experimental design with the study sample used was normal fibroblasts and keloid fibroblasts taken from the skin keloid tissue and normal tissue of 2 patients. The normal fibroblasts used were cultured in the Dulbecco Modified Eagle’s Medium (DMEM)-Sigma™ medium containing 5% CO2, 100μg/mL penicillin-streptomycin (Pensrept), Gibco™, with a cell number of 5x104 cells/mL. Measuring the migration of fibroblasts with the in vitro scratch assay method and measuring TGF-β fibroblasts were carried out according to the protocol issued by the Bender Med System as a human measurement kit procedure TGF-β1.

Results: The percentage of migration at the lowest combination dose was obtained at dose V (4.35 μg/mL TAC and 2 mg/mL 5-FU) which was 5.25% with one-way ANOVA p<0.05. While the lowest inhibition of TGF-β synthesis was at dose VI (2.18 μg/mL TAC and 4 mg/mL 5-FU), which was 67.02 pg/mL with one-way ANOVA p<0.05.

Conclusions: Comparison of the best injections in inhibiting cell migration and synthesis of keloid TGF-β fibroblasts is 2.18 μg/mL Triamcinolone acetonide (TAC) and 4 mg/mL 5-Fluorouracil (5-FU). 

Keywords: Keloid, TGF-β, migration of fibroblasts, TAC, 5-FU

Cherubism mandible: a case report

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Introduction: Cherubism is a rare autosomal dominant inherited disease, painless, sometimes symmetrical, jaw enlargement due to the presence of giant cells and fibrin tissue proliferation. Cherubism was first introduced by Jones in 1933 as a multicocular cystic disease of the mandible, a ball-like cibber shape and symmetrical enlarged face that is a diagnosis of cherubism. Cherubism usually attacks children aged 2 - 7 years, with progressive swelling on the cheeks that is not hurt, sometimes followed by dental malformations, this develops until puberty and shows partial or complete spontaneous involvement in adulthood.

Case: It was reported that a 16-year-old boy complained of a lump in the right and left lower jaw, initially as big as a quail egg and then the size bigger until like a tennis ball. The patient does not feel pain, the lump is felt only numb when pressed. Later the patient feels pain, the pain increases especially when chewing food, when sleeping patients sometimes feel a little dyspnoea and snoring. Patients seeking treatment at Waringin General Hospital were said to have abnormalities in their jaw bones. Surgeon took a samples and the results of the pathology anatomy are cherubism. Referred to Dr. Kariadi General Hospital, total mandibulectomy was performed.

Conclusion: Cherubism has been reported in the mandible of a 16-year-old child and total mandibulectomy was performed.

Keywords: cherubism, total mandibulectomy, surgery.

Retrospective evaluation of burn-injured patients in Prof. Dr. R. D. Kandou General Hospital Manado, Indonesia

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Background: Burn injuries remain one of the commonest forms of trauma in health-care emergencies around the globe. There is a retrospective study of burn-injured patients in Prof. Dr. R. D. Kandou General Hospital between June 2011 and June 2014. This study aims to obtain a comprehensive baseline data for subsequent reviews and to evaluate the quality of patient care in Prof. Dr. R. D. Kandou General Hospital.

Methods: The samples were taken from all medical records of burn-injured patients who had been treated in Prof. Dr. R. D. Kandou General Hospital Manado, from January 2016 to May 2019.

Results: From 121 patients, 87 (71.9%) of them were males, 34 (28.1%) were females, giving a male and female ratio 2.5:1. Flame is the most common cause (42.8%). 89 (73.5%) patients were cured, 13 (10.7%) patients had passed away, 19 (15.8%) patients were discharged without doctor's consent.

Conclusion: The prevalence of burn injuries was dominated in male 2.5 times than female, about 42.8% was caused by flame, and 10.7% of total patients had passed away.

Keywords: burn, injury, characteristics.

The epidemiology of secondary repair in West Java’s Cleft Lip And Palate Center from 2011 to 2018

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Background: Cleft lip and palate is the most frequent congenital malformation of the head and neck region. The purpose of this study was to report the epidemiological profile of secondary repair done on patients with cleft lip and palate from January 2011 to December 2018.

Methods: A retrospective study was done to evaluate the patients operated for secondary repair of cleft lip, cleft palate, or cleft lip and palate. Type of cleft and its surgery were reported.

Result: A total of 2,333 patients were seen during this period (January 2011 to December 2018). There were 209 (8.9%) patients underwent a secondary repair surgery. Among this, 108 (52%) were labioplasty, 80 (38%) revision palatoplasty, 4 (2%) revision labioplasty with palatoplasty, and 17 (8%) revision labioplasty with rhinoplasty.

Conclusion: This study indicates that secondary repair mostly is done on patients with cleft lip alone, followed by patients with cleft palate, then patients with cleft lip and palate.

Keywords: cleft lip and palate, cleft lip, cleft palate, secondary repair.

Intradermal suture effect using polypropylene materials on postoperative scar tissue in cases of lower extremities closed fracture cases

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Background: Hypertrophic scarring is the most common complication in postoperative wounds. One of the preventive measures for scar tissue is by adding intradermal sutures when closing the surgical wound. This study aims to prove that the addition of intradermal sutures using polypropylene materials can reduce the complications of scarring in postoperative wounds on lower extremities closed fracture cases under internal fixation procedure.

Methods: Experimental studies using Randomized Controlled Trial Post Test Only Design were carried out in patients with lower extremity fractures in Saiful Anwar General Hospital, Malang. The sample was chosen by proportional sampling which was the group given the treatment as well as the control group (n = 36). The variable measured was the clinical appearance of scar tissue formed 6 months after surgery using the Vancouver Scar Scale.

Result: The addition of intradermal sutures using polypropylene materials had a significant effect on the formation of postoperative scar tissue. The total Vancouver Scar Scale score has a value of p = 0.000 (α = 5%) for Mann Whitney test.

Conclusions: The addition of intradermal sutures using polypropylene threads in cases of closed fractures with internal fixation can reduce the appearance of postoperative scar tissue.

Keywords: Hypertrophic scar, intradermal sutures, vancouver scar scale.
Mandibular fracture: three years of evaluation

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Background: Mandibular fracture is one of the most common traumatic cases in the maxillofacial bone fracture. The incidence of mandibular fracture was still high in Makassar, South Sulawesi.

Objective: The aim of this study was to see the incidence, area distribution, fracture location and treatment of mandibular fractures in Wahidin Sudirohossus Hospital, Makassar.

Method: This study was conducted with retrospective study from medical records with primary diagnosis of mandibular fracture at the Wahidin Sudirohossus hospital from 1st January 2015 until 31st December 2017. The data was classified into groups according to year of treatment, gender, age, cause of trauma, type and site of mandibular fracture, and treatment.

Result: The number of 120 patients were admitted at Wahidin Sudirohossus Hospital in a three-year period. Male were 3 times more susceptible to mandibular fracture than women (77.5%). The age group of 70 to 19 years old was the most common group sustaining mandibular fractures (38.3%). Most fractures were caused by motorcycle collision (93.3%), the most common site of fracture was at body of the mandible (30%).

Conclusion: The incidence and cause of mandibular fracture reflect maxillofacial trauma patterns in the community and can provide information which can be used as a guide to design prevention and treatment programs.

Keywords: mandibular fracture, maxillofacial trauma

Reconstruction of Basalioma: Case series

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Background: Basalioma, also known as basal cell carcinoma (BCC), is a neoplasm which derives from non-keratinizing cells that are located in basal layer of epidermis. It is more prevalent in areas of bare and sun-exposed skin such as the facial areas. Wide and deep local excision has been the traditional method of achieving clear resection margins for BCC and requires adequate reconstruction. Local flaps have proved their worth in the facial reconstructive surgery of facial defects left after excision of BCC.

Case Description: This study reviews six patients who underwent surgical excision of skin malignancy involving the facial region followed by primary reconstruction using local fasciocutaneous flaps. The duration of follow-up ranged from 1 week to 3 months post operation. All flaps survived completely with no complications. During the follow-up, tumor recurrence was not seen in any of the patients. All patients had satisfactory functional and cosmetic outcome. Reconstruction of post-surgical facial defects must preserve the integrity of complex facial functions and expressions, as well as facial symmetry and a pleasing aesthetic outcome. Local flaps give the best results and are the first choice for facial defect reconstruction. Local flaps have the advantage of good reliability, low donor site morbidity, good color match, and a relatively short operative time.

Conclusion: The key to achieving satisfactory result of reconstructing facial defect after surgical incision of skin malignancy requires considerable technical skill and experience as well as a well-thought flap design and back-up plan prior to surgery.

Keywords: Basalioma, reconstruction, local flap

Effects of using aloe vera extracts on the amount of fibroblast and collagen thickness on healing process of clean wound of white rat skin

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Background: Wound is injury that are often experienced by humans nowadays. Failure to heal will provide quite high morbidity and mortality rate on patient. Wound healing is a complex stage of the process. In order for the wound to heal perfectly, wound healing phase must go in the right order and time Fibroblasts are cells that play an important role in wound healing and are able to synthesize extracellular matrix including collagen. Currently there are many agents that can improve the wound healing process, one of which is Aloe vera extract. Aloe vera extract is believed to have potential as an anti-inflammatory, antibacterial, hypo-allergenic, analgesia and moisturizing agent. Until now there have been no studies related to the role of Aloe vera extract on fibroblasts and the thickness of collagen in the wound healing process and its effects when compared to other agents that are often used in society, like tulle. This study aims to compare fibroblasts and collagen thickness in the wound healing process clean skin of white rats (Rattus novergicus) which has been given the extract of Aloe vera and tulle.

Methods: pure laboratory experimental study in white rats using Aloe vera extract, tulle and control normal saline fluid on clean skin wounds. Location: Animal Laboratory Airlangga University, Surabaya. Subjects: 33 male white rats (Rattus novergicus), of which 11 were in the first control group (Normal Saline), the next 11 were as group 2 (Topical Aloe vera extract) and last 11 rats as group 3 (Topical Tulle). Outputs: Number of Fibroblast and Thickness of Collagen.

Results: Data on body weight and age of the sample which used in this study were homogenic in all groups (p> 0.05). Statistical tests using one-way ANOVA stated that 2nd group (Aloe vera administration) had more fibroblasts and was statistically significant compared to the other groups (p = 0.011). There was no statistically significant difference in the collagen thickness of these three test groups (p = 0.414).

Conclusion: Administration of topical Aloe vera Extract can increase the number of fibroblasts more in healing process clean wounds of Rattus novergicus rats compared to 1st group (normal saline fluid) and 3rd group (topical tulle). There was no significant difference in the collagen thickness of these three test groups above.

Keywords: Fibroblast, Collagen thickness, Topical Aloe vera extract, Topical tulle.
ABSTRACT

Neurological Surgery

Association of operative and non-operative treatments for motor and sensory functions in cervical trauma patients

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Objective: Cervical trauma is a potentially serious problem, if not treated appropriately. Advanced management for patients with cervical trauma is done using surgical and non-surgical treatments. Both managements have their consequences, and the best treatment still unknown. This study assessed motor strength and sensory function before and after surgical procedures compared to conservative procedures.

Methods: All patient with cervical spine injury, diagnosed with cervical X-ray, cervical-CT were registered. Medical charts of the patients were reviewed and the data were extracted using a standard data collecting form. We recorded patients age, sex, occupation, level of injury, motoric and sensory status before and after treatment, treatment (non-operative or operative) and clinical outcome. The study protocol was approved by institutional review board (IRB) of Faculty of Medicine, Diponegoro University.

Result: There were 33 cervical injury patients who met the criteria over three months of study. In this study, we found an increase in motor strength in patients undergoing surgical procedure (41.2%) compared to conservative procedures, although it was not statistically significant (p=0.07). The difference in sensory levels in patients undergoing surgical procedures (5.9%) was slightly improved (p=0.1).

Conclusion: In this study found an increase in motor strength in patients who underwent surgery, but the increase was not significant. Also, sensory function in patients who underwent the two procedures had no significant difference.

Keywords: cervical trauma, treatment, surgical, non-surgical.

Correlation between level of interleukin-6 (IL-6) serum and blood peripheral leucocyte in patients with severe traumatic brain injury

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Background: Increased level of interleukin 6 (IL-6) in patients with severe traumatic brain injury (TBI) has been documented, yet studies of its ability to predict the outcome based on the Leucocyte is limited and lacks clarity. To determine whether the correlation between serum level of IL-6 and leucocyte among patients with severe TBI.

Methods: Twenty patients with severe TBI which admitted to emergency room (ER) were included in this observational, cross-sectional study. Venous blood sample for IL 6 and leucocyte was taken less than 24 hours after trauma. Age and gender were also recorded. Variable selection was performed step by step. Pearson correlation test was used in this study.

Results: Mean IL-6 was 22.006 pg/ml (SD 4.66494 pg/ml). Mean leucocyte was 22.53325 pg/ml (SD 8.11649 pg/ml). Result of Pearson Correlation test was r = -0.290 and p = 0.108.

Conclusion: There is no significant correlation between serum level of IL-6 and leucocyte in patients with severe TBI.

Keywords: IL-6, Leucocyte, severe TBI

Surgery in Sturge–Weber Syndrome with uncontrolled epilepsy: a case report

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Background: Sturge–Weber syndrome (SWS) is the association of the facial port-wine birthmark with malformed leptomeningeal blood vessels and abnormal venous eye vessels. Most of patients with SWS have epilepsy that presenting in the first 2 years of life. The incidence is about 1: 50.000 per year.

Case: A 21-year-old male was diagnosed with Sturge-Weber syndrome 20 years ago based on clinical signs: port-wine nevi on the left side of the face along the distribution of the trigeminal nerve, and partial seizures. The patient was treated with phenytoin and divalproex sodium for years but had seizures with facial twitch that lasted five minutes 3 times per month. Magnetic resonance imaging showed sclerotic left hippocampal and left cerebellar atrophy. Left anterior temporal lobectomy and left Amigdolo-hipocampectomi was done. Patient has seizure free based on Engel criteria after 24 months follow up

Conclusion: Most cases with Sturge–Weber syndrome are not life-threatening. This is a progressive disease, associated with continuous neurological decline. With vigorous control and treatment of symptoms, such as seizures, visual problems, and paralysis, quality of life can be preserved. Surgery is one promising choice for alternative treatment to control seizures in uncontrolled epilepsy with Sturge–Weber syndrome

Keywords: Sturge–Weber syndrome, surgery, epilepsy, management.

The differences of vertebrae MRI on tuberculous spondylitis and extradural tumor on the patients of neurosurgical department of Dr. Kariadi General Hospital in September 2015 to Agustus 2016

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Background: Tuberculous spondylitis is the most common extrapulmonary...
tuberculosis in developing country, but difficult to diagnosed and differentiate with extradural tumor. One of the modalities to differentiate tuberculous spondylitis with extradural tumor was magnetic resonance imaging (MRI). This study aimed to differentiate between MRI of tuberculous spondylitis and extradural tumor.

**Method:** This was an observational-descriptive study conducted in Kariadi General Hospital, Semarang from September 2015 to August 2016. Total numbers of participants were 19 patients. Diagnosis was made based on histopathology results along with the supportive evidence of MRI.

**Result:** Tuberculous spondylitis was found in 15.78% of all participants. MRI of 100% of all participants with tuberculous spondylitis showed corpus and discuss involvement with lesion in anterior part of vertebrae. On the other hand, 88.89% of the MRI of extradural tumor showed lesion in anteroposterior of vertebrae. There was no skip lesion in tuberculous spondylitis, whereas skip lesion was found in 88.89% of MRI in extradural tumor. In tuberculous spondylitis, 100% of the participant showed rim enhancement, whereas in extradural tumor, 100% of the participants showed heterogeneous enhancement.

**Conclusion:** Although histopathology investigation was still a gold standard for differentiating between tuberculous spondylitis and extradural tumor, but MRI was also a valuable investigation which gives information about the disease.

**Keyword:** Tuberculous spondylitis, extradural tumor, MRI.

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**Intracranial hemorrhage event numbers in children based on types of sex, age, and location of blood: studies in Dr. Kariadi General Hospital Semarang period of 2016-2018**

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**Background:** The incidence of intracranial bleeding in children is a rare event, but requires special attention because of the high mortality and morbidity caused by this event. To determine the magnitude of the incidence of intracranial bleeding in children based on sex, age and location of bleeding in Dr. Kariadi General Hospital Semarang for the period 2016-2018.

**Method:** This study was an observational study with a cross sectional design. Samples were taken by consecutive sampling technique based on the time of arrival of the patient.

**Result:** In all cases of child intracranial hemorrhage that occurred in 2016-2018, the incidence of intracranial bleeding occurred more in children of male sex (55.36%) compared with women (44.44%). The frequency of occurrence occurred mostly in the age group of children (33.3%) and adolescents (33.3%), then in the age group of infants (27.8%) and the least was found in the age group of children under five (5.6%) there are 13 different variations in the location of lesions, with the most frequent locations being right frontalis region (27.8%).

**Conclusion:** During 2016-2018 there were 18 cases of intracranial hemorrhage in children namely patients aged 0-18 years in Dr. Kariadi General Hospital, Semarang. 8 female patients and 10 male patients were obtained. The largest age group of the study sample is the age group of children (5-10 years) and adolescents (10-18 years). The most bleeding location is the right frontalis region.

**Keyword:** Intracranial hemorrhage, consecutive sampling, right frontalis.

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**Characteristics of epidural hemorrhage patients in Dr. Hasan Sadikin General Hospital period January 2013 until December 2018, Bandung, Indonesia**

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**Background:** Epidural hematoma is one of the most common types of intracranial hemorrhage due to skull fracture. Epidural hematoma as an emergency neurological state and is usually associated with a linear fracture that decides on a larger artery, causing bleeding. In the United States, 2% of cases of head trauma result in epidural hematoma and about 10% result in coma. Describe the profile of patients with epidural hematoma and management of patients who come to Dr. Hasan Sadikin General Hospital Bandung for the period 1 January 2013 – 31 December 2018.

**Method:** Data were taken from medical records of epidural hemorrhage cases that came to Hasan Sadikin Hospital for the period of 1 January 2013 – 31 December 2018.

**Results:** There were 757 epidural hematoma patients recorded. Patients with more male sex were 584 people (77.1%). The age distribution of most epidural hematoma patients was 11-20 years old, 288 patients (38.0%). The most common part of the injury is the temporal part, as many as 342 patients (45.2%). Epidural hematoma cases are more often performed non-operatively as many as 436 patients (57.6%). Patients experienced more improvement, namely 687 patients (90.8%).

**Conclusion:** Many patients who experience epidural hematoma for 5 years, mostly in men, at the age of 11-20 years, occur in the temporal area, and many are performed non-operatively with results of improvement.

**Keywords:** Epidural hematoma, neurological, linear, temporal fracture.

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**Ventricular peritoneal shunt malfunction incidence in hydrocephalus patients after shunt procedure at Dr. Kariadi Hospital Semarang during the period July 2016-June 2017**

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**Background:** Hydrocephalus is a cerebrospinal fluid formation of flow or absorption disorder which leads to an increase in central nervous system fluid volume. There are three treatment principles for hydrocephalus patients: reduce cerebrospinal fluid production, improve the relationship between cerebrospinal fluid production sites, release cerebrospinal fluid into extracranial organs using...
Cervical spondyloptosis treated with posterior approach reposition stabilization fusion

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Background: Cervical spondyloptosis, usually associated with high-energy trauma and severe spinal cord injury (SCI). It is an unstable condition and surgical treatment is mandatory. This study reported a case of cervical spondyloptosis, C6–C7 level, associated with quadriplegia treated with a posterior approach.

Case Report: A 61-year-old male patient with quadriplegia due to fallen from 5-meter height, 5 hours before visiting the emergency room. Preoperative neurological examination shows patient quadriplegia with ASIA A. Cervical spine CT Scan demonstrated C6-7 anterior spondyloptosis, comminutive fracture and avulsion on C6 right pedicle and left lamina to posterior and bilateral facet joint dislocation. It was 3 hours surgical procedure within 24 hours after trauma. Patient was treated with posterior C3–Th2 reposition, stabilization and fusion. Postoperative C-arm showed corrected alignment of C3-Th2. Postoperatively, the patient showed ASIA A at a C5 motor and sensory level. The patient was died due to sepsis and pneumonia 49th day post operative.

Conclusion: Subaxial cervical spine spondyloptosis is an uncommon injury. Surgical goals include vertebral realignment and stabilization. In this case, posterior surgical approach, quick respond and less than 24-hour interval of surgery, less than 3 hours duration of surgery and good postoperative alignment and stabilization still not given good result. The level of cervical injury still holds the end prognosis as it maintains the spontaneous breathing and the ability of patient to survive from sepsis and pneumonia.

Keywords: cervical spine spondyloptosis, posterior approach, cervical reposition stabilization fusion.

Relationship of propofol administration to cerebral perfusion in patients with moderate head injuries

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Introduction: Head trauma is one of the biggest contributors to morbidity and mortality caused by trauma. One of head injury management is to maintain optimal cerebral perfusion pressure and prevent secondary head injury. Propofol as an anesthetic agent also has a neuroprotective effect of preventing tissue hypoxia so that it can be one of the initial interventions to prevent secondary head injuries. We wanted to examine the relationship of propofol administration to cerebral perfusion in patients with moderate head injury at the Regional General Hospital, Dr. Zainoel Abidin, Banda Aceh.

Methods: The research is a prospective observational analytic with cross sectional design. Subjects in this study were 20 patients with moderate head injury who received propofol as preoperative induction agent and underwent cerebral perfusion examination using transcranial doppler before and after induction. The study was conducted from January to April 2019 at the central surgical installation and intensive care unit of RSUDZA.

Results: The study showed the patient’s age averaged 29.35 ± 7.206 years. The average pulsatile index (PI) before induction of propofol was 1.58 ± 0.591 and after induction 1.12 ± 0.249 where the condition of hypoperfusion was expressed if PI> 1.3. Analysis using Wilcoxon test showed there was a relationship between the administration of propofol to increased cerebral perfusion in moderate head injury patients in RSUDZA (p < 0.0001).

Conclusion: Propofol increases cerebral perfusion in moderate head injury patients by affecting the perfusion and brain metabolism resulting in decreased intracranial pressure.

Keywords: head injury, propofol, cerebral perfusion.

Effectiveness comparison of propofol and midazolam in reduction S100B protein serum levels in moderate head injury underwent surgery at Dr. Zainoel Abidin General Hospital Banda Aceh, Indonesia

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Introduction: Traumatic brain injury (TBI) is the most common causes of death and disability at a young age throughout the world. Brain damage due to TBI results from primary and secondary injuries involving various biomarkers such as S100B protein serum. Sedation and analgesia in TBI patients play an effect on reduction of S100B protein serum levels. Propofol is a sedative-anesthetic agent with neuroprotective effects and an effect on cerebral perfusion pressure. Midazolam is a sedative agent on intracranial pressure. We wanted to examine the effect of propofol and midazolam in reducing S100B protein levels in TBI patients undergoing the induction of surgery.

Methods: This was an analytic observational study with case-control design. Subjects in this study were 20 patients by affecting the perfusion and brain metabolism resulting in decreased intracranial pressure.

Conclusion: Head trauma is one of the biggest contributors to morbidity and mortality caused by trauma. One of head injury management is to maintain optimal cerebral perfusion pressure and prevent secondary head injury. Propofol as an anesthetic agent also has a neuroprotective effect of preventing tissue hypoxia so that it can be one of the initial interventions to prevent secondary head injuries. We wanted to examine the relationship of propofol administration to cerebral perfusion in patients with moderate head injury at the Regional General Hospital, Dr. Zainoel Abidin, Banda Aceh.

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Introduction: Traumatic brain injury (TBI) is the most common causes of death and disability at a young age throughout the world. Brain damage due to TBI results from primary and secondary injuries involving various biomarkers such as S100B protein serum. Sedation and analgesia in TBI patients play an
important role in controlling pain, anxiety, agitation and can play a dual role as a neuroprotector mechanism. The aim of this study to assess the differences in the effectiveness of Propofol and Midazolam sedation in reducing serum protein levels S100B in TBI patients.

**Method:** This research is a prospective observational study with cross sectional design. A total of 40 moderate head injury patients were involved in this study which was divided into two groups, Propofol and Midazolam groups with 20 subjects each group. Examination of serum protein S100B was carried out before and after 48 hours of sedation.

**Results:** Mean age of both groups is 33.8 years with the same distribution of the Glasgow Coma Scale (GCS) of 10.95 ± 1.39 (Propofol) and 11 ± 1.55 (Midazolam). Initial S100B protein serum levels in the Propofol and Midazolam groups were 279.7 ± 133.85 pg/mL and 340.98 ± 130.5 pg/mL respectively. These levels decreased significantly after 48 hours of sedation, which was 30.23 ± 1.41 pg/mL and 94.11 ± 19.78 pg/mL with p-value <0.001. Mann Whitney test concluded that levels of S100B protein serum after 48 hours Propofol and Midazolam sedation differed significantly with a value of p-value <0.001.

**Conclusion:** S100B protein serum play roles in TBI severity biomarker where high levels indicate a poor prognosis. The administration of sedation in TBI patients can reduce S100B protein serum levels. Propofol sedation is more effective than Midazolam in reduction of S100B protein serum levels close to normal values.

**Keywords:** traumatic brain injury, propofol, midazolam, s100b

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**Delayed nerve repair with epineural micro sutures in traumatic radial nerve injury: a case report**

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**Introduction:** An injury to the nerve can result in a problem with the muscle innervation or in a loss of sensation. Nerve injuries are generally divided into three categories as neuropraxia, axonotmesis, and neurotmesis. The type of nerve injury will determine the type of treatment that will be needed. The timing of surgery is one factor influencing the extent of recovery but it is not yet clearly defined how long a delay may be tolerated before repair becomes futile.

**Case:** A 14-year-old male complained cramps, tingling, and numbness of his left arm and he cannot extend or straighten his left wrist and fingers after he got a left arm injury 3 months ago. The electromyography (EMG) shown that left radial nerve lesion at left radial sulcus. Direct nerve repair with epineural micro sutures is performed. 2 weeks after surgery, we found progress on the sensory recovery process, but no progress on the motoric recovery process.

**Conclusion:** Direct nerve repair with epineural micro sutures is an effective treatment for radial nerve injury, but the timing of surgery is one factor influencing the extent of recovery.

**Keywords:** radial nerve, injury, delayed nerve repair, epineural micro sutures, case report.

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**Profile of meningioma patients at Dr. Moewardi General Hospital In Surakarta 2017-2018**

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**Background:** Meningiomas are the most common primary benign brain tumor, which is around 36%. High fatality rate made meningioma needs special attention. In Indonesia, data about the incidence of tumor central nervous system annually has not been reported. The study aims to determine meningioma patients' profile at Dr. Moewardi General Hospital.

**Methods:** Data of meningioma patients were taken from medical records of inpatients in January 2017 - December 2018 at Dr. Moewardi General Hospital Surakarta, then grouped according to age, gender, contraceptive history, treatment, and histopathology. Data were processed and displayed in the form of tables and graphs.

**Results:** Total 185 meningioma patients, most patients were discovered in their fifth decade of life (40-49 years) as many as 75 people (40.5%). More often seen in women 159 patients (85.9%). Based on the history of contraceptive use, the most were contraceptive pills 68 people (36.7%). Resection was accomplished in 133 patients (71.8%). Based on the histopathological classification, the most common meningioma was meningothelial meningioma, 119 patients (89.4%)

**Conclusion:** There were 185 samples of meningioma patients in the period within January 2017 - December 2018. Women are most likely to develop meningioma with the highest incidence is in the fifth decade of life. Mostly found in patients with history of using contraceptive pills. Tumor resection is the most chosen therapy with the most common histopathologic classification is meningothelial meningioma.

**Keywords:** meningioma, characteristics, outcome, retrospective.

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**Pediatrics brain tumor incidence based on histopathology feature, age and sex (a study at Dr. Kariadi Hospital Semarang 2007-2017)**

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**Background:** Brain tumor is the second most common malignancy in children after leukemia and the most common cause of cancer-related deaths in children younger than 15. Pediatrics brain cancer incidence is 13.3 per 100,000 populations with mortality rate 2.6 per 100,000 population in the United States during 2001-2005. However, its incidence in Indonesia is rarely found in the literature. The aim of this study was to determine pediatrics brain tumors incidence at Dr. Kariadi Hospital Semarang from period 2007-2017.
ABSTRACT

Methods: A retrospective descriptive study of pediatrics brain tumor patients that came to emergency department or neurosurgery clinic was carried out at Dr. Kariadi Hospital Semarang during 2005-2017. Patients older than 17, had unknown histopathological results and incomplete data were excluded from the study. Age, sex and histopathological results were described as graphs and frequency tables.

Results: During 10 years of study, there were 179 cases of pediatric brain tumors that met our criteria. Highest brain tumors incidence was found at 0-5 years group and lowest at 17 years group (33% and 9.5% respectively) with higher incidence in male patients (ratio 1:1.3). The most common types of brain tumors were pylocystic astrocytoma (21 cases or 11.7%).

Conclusion: Pylocystic Astrocytoma was the most common type of pediatric brain tumor at Dr Kariadi Hospital Semarang with the highest incidence at 0-5 years and in male patient.

Keywords: brain tumors, children, malignancy, incidence

Urogenital Surgery

Minimal invasive therapy as good as with excision and primary anastomosis at partial posterior urethral stricture management in Bali-Indonesia

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Background: Urine retention can be caused by narrowing of the lumen of the urethra because of fibrosis in the wall called urethral stricture. This medical emergency because it may cause mild to fatal complications for the patient.

Method: A retrospective cohort study of patients with posterior urethral stricture was carried out in the Urology outpatient of Sanglah General Hospital and 4 private hospitals in Bali. There were 34 patients with inclusion criteria in January 2014 - January 2019. The comparison of International Prostate Symptoms Scores (IPSS), quality of life, Q-max, post voiding residue, Erection Hardness Scores (EHS), Clean Intermittent Catheterization (CIC), recurrence and Penile Perception Scores (PPS) was carried out by a researcher when the patient performs postoperative control.

Results: Excisional and primary anastomosis (EPA) was significantly superior to minimal invasive therapy (MIT) in Q-max (p<0.001, Different Average: 13.1, 95% CI: 7.72-18.54), CIC (p=0.007), and PPS (p=0.003). There were differences that were not statistically significant on quality of life (p=0.071), IPSS (p=0.083), post voiding residue (p=0.688), recurrence (p=0.225) and erectile ability (p=0.303)

Conclusion: EPA in several aspects were superior to MIT includes the Q-max, CIC and PPS. Some differences that were not statistically significant on quality of life, EHS, IPSS, post voiding residue and recurrence. MIT as good as EPA at posterior urethral stricture management in Bali.

Keywords: posterior urethral stricture, excision and primary anastomosis, Internal urethrotomy, dilatation, penile perception scores.

Short-term follow-up pediatric male urethral reconstruction: a case series

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Background: Urethral strictures are rarely found in children, and mostly caused by urethral trauma. Urethral reconstruction is commonly performed to manage the condition. There are fewer data on short-term follow-up to
Correlation between total ischemic time with creatinine level and urine production in kidney transplant: a single center report

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Background: Kidney transplantation is acknowledged as a significant advance of modern medicine which provides high-quality life years to patients with irreversible kidney failure (end-stage renal disease, ESRD) worldwide. The first kidney transplantation in Semarang underwent at Telogorejo Hospital in 1985. Dr. Kariadi Hospital nowadays, kidney transplantation had done 28 times from January 2014 until September 2018. Kidney ischemic time is one of the important factors which can affect the outcome of kidney transplantation. The prolonged ischemic of the graft can be related to the effect transplantation. This study is aimed to evaluate the influence of total ischemic time with the outcome of kidney transplantation in Dr. Kariadi Hospital Semarang.

Methods: This is an observational, cross sectional study. The data were collected from medical record. The subject of this study were all patients who underwent kidney transplantation that recorded in medical record from January 2014 until December 2018 and the level of creatinin dan urine production before and after transplantation was documented. There is 28 patient who includes in inclusion criteria. The results of the study will be tabulated and statistical calculations are performed using SPSS 23.0. Pearson correlation test was used to evaluate ischemic time with creatinine level. All value considered significant if p<0.05.

Results: There was a significant negative correlation between ischemic time and a decrease in creatinine level (r=-0.4489; p=0.008). Also, there is a significant negative correlation between ischemic time and urine production after transplantation (r=-0.0562; p=0.002).

Conclusion: From the results of this study there is a strong correlation between the length of total ischemic time with a decrease in creatinine and urine production which means that the longer ischemic time the lower the decrease in creatinine levels and the less urine production.

Keywords: Total Ischemic Time, Creatinin Level, Urine Production, Kidney Transplantation

Profile of kidney trauma patients at Prof. R. D. Kandou General Hospital period April 2017-April 2019

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Background: Kidney trauma is the most common urinary tract trauma. This paper discusses research on the profile of patients with kidney trauma for 2 years (April 2017 to April 2019) in Prof. Dr. R. D. Kandou General Hospital, Manado, Indonesia.

Method: This research is descriptive retrospective with data on kidney trauma patients with trauma recorded in medical record at Prof. Dr. R. D. Kandou General Hospital. The data collected consecutively from the medical records of patients with end-stage renal disease who underwent kidney transplantation in Dr. Kariadi General Hospital from January 2012 until July 2018. A twenty-seven kidney transplantation was retrospectively analyzed.

Results: In eight years of observation, on average recipients were younger compared to the donors. All kidneys were acquired from living donors with the majority to be blood-related. The 3 leading etiologies of end-stage renal disease were hypertension, diabetes mellitus, and autoimmune disease. The average total ischemic time was 36.9 minutes and the average length of stay was 11 days. We report 5 cases of mortality, 3 cases of allograft rejection and no re-transplantation.

Conclusion: The development of kidney transplant in Semarang follows the National milestones. To maximize the potential of the institution, further improvements should concentrate on the development of integrated organ transplant infrastructure. The main goal of this institution is to establish a transplant center capable of covering Central Java, aiding the decentralization of kidney transplant in the Nation.

Keywords: kidney, transplantation, end-stage renal disease, Indonesia, outcomes, prognosis.
patients between April 2017 and April 2019 from the medical record data of Prof. Dr. R. D. Kandou General Hospital, Manado, Indonesia.

**Result:** From 17 patients, 15 patients (88%) of them were male and 2 patients (12%) were female. 15 patients (88%) have blunt kidney trauma, 2 patients (12%) have sharp kidney trauma. 15 patients (88%) have conservative treatment. 7 patients (41.2%) with Grade IV renal injury is the most common. The highest incidence of kidney trauma is found in 8 patients (32%) which aged 10-20 years, 7 patients (41.2%) have kidney trauma without other concomitant trauma. 15 patients (88%) were caused by traffic accident. From laboratory tests, there were 15 patients (88%) with anemia.

**Conclusion:** From 17 cases of kidney trauma in Prof. Dr. R. D. Kandou General Hospital Manado between April 2017 and April 2019, the prevalence of kidney trauma was dominated in male 7.5 times than female, about 88% was caused by traffic accident, about 88% was treated with conservative method with a success rate of 80%.

**Keywords:** kidney, trauma, characteristics, management.

### Renal trauma: five years evaluation in Makassar, Indonesia

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**Background:** The kidney is the 3rd most common organ that is injured due to abdominal trauma after spleen and liver. Blunt trauma to the abdomen, flank, or back are the most common injury mechanism. This study aims to analyze the characteristics of renal trauma patients treated at four teaching hospital under our institution.

**Methods:** We conducted a retrospective, descriptive study guided by review of hospital medical records of renal trauma victims. The variables analyzed were age, gender, mechanism of injury, degree of renal trauma, conduct individualized according to the degree of renal trauma, associated injuries, management, and outcome.

**Results:** From January 2014 until December 2018, we got 68 cases of renal trauma, with an average age of 23.9 years, mostly (83.8%) male. Blunt trauma accounted for 89.7% of all cases. The most common renal injuries are grade IV (42.6%). There are 14% of cases without hematuria. Most patients are treated with non-operative management (NOM). Nephrectomy in 16.2% of cases, and without severe damage from injury to other related organs. We get a low mortality rate, and no case is directly related to kidney damage. Increased reporting of renal trauma demographics is needed to improve patern detection and assist future epidemiological assessment.

**Keywords:** renal trauma, epidemiology, traumatology, management.

### Association between hyperglycemia and prostate volume in patients with benign prostate hyperplasia: a hospital case-control study

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**Introduction:** Prostate is a male organ which might enlarge mostly, either benign or malignant. Hyperglycemia is one of the factors that increase the risk of benign prostate hyperplasia. There is lack of studies which assessed the relationship between benign prostate hyperplasia and isolated hyperglycemia. This study aimed to evaluate the association between hyperglycemia and prostate volume in patients with benign prostate enlargement in Dr. Kariadi Hospital Semarang.

**Method:** We conducted a retrospective analysis of clinical data which obtained from 640 men between 2010 and 2012 who admitted to the hospital with diagnosis of benign prostate enlargement. By their medical records, these patients were evaluated of their plasma glucose level and prostate volume by trans rectal ultrasound. The presence of hyperglycemia was determined based on the American Diabetes Association (ADA) and the European Association for the Study of Diabetes (EASD). Patients have already been diagnosed with controlled diabetes mellitus by an internist. We allocated the subjects into two groups: patients with hyperglycemia and non-hyperglycemia. Logistic regression analysis was used to assess whether hyperglycemia was associated with the increased risk of benign prostate enlargement.

**Results:** Significant difference in prostate volume found between groups. Prostate volume was significantly greater in hyperglycemia group compared with non-hyperglycemia in all sub-groups based on age.

**Conclusion:** Hyperglycemia and prostate volume were significantly associated with patients with benign prostate enlargement. Hyperglycemia became a significant risk factor for prostate enlargement in patients with benign prostate enlargement in dr. Kariadi Hospital Semarang.

**Keywords:** hyperglycemia, benign prostate, enlargement.

### Problems in hypospadias triplets: a case series

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**Background:** Hypospadias is a congenital anomaly in which the urethral opening is not correctly positioned at the tip of the penis. It is the second most common congenital disorder in boys after cryptorchidism and the most frequent malformation of the penis. Given the frequency and on-going implications, hypospadias is an important health issue and can be a substantial burden on health-care resources, because of a high risk of complications, such as recurrent stenosis or fistulae, the most severe cases often require several surgeries. It is thought that a combination of environmental influences and...
Proportion in difference between stone location, skin-to-stone distance, stone density, stone size in computed tomographystonography and index of body mass and renal function with extracorporeal shock wave lithotripsy stone free numbers in kidney stone patients

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Background: Kidney stones are a health problem that is still commonly found in the world. Along with the increasing incidence of kidney stones today, the choice of therapeutic modalities is also increasingly varied. Extracorporeal Shock Wave Lithotripsy (ESWL) is still the first line for the treatment of small kidney stones, with success rates varying. This can be influenced by several risk factors. A predictor of these risk factors is needed to get a high stone-free number from the therapy that will be used especially in ESWL. This study aims to determine the differences in the proportion between risk factors related to stone free numbers in patients with kidney stones post ESWL so that more efficiency in time and financing in handling them.

Method: This observational a retrospective cohort study design, carried out through observing the patient's medical records at the Medical Record Installation at the Sanglah Educational General Hospital in Denpasar. The study was conducted during the period from November 2018 to March 2019 and it was recorded that 41 kidney stone patients underwent ESWL, then divided into two groups: negative stone free numbers (n = 24) and positive stone free numbers (n = 17). From the data collected then traced through the patient's medical record regarding the location of the stone, SSD or the distance between the skin to stone, stone hardness, stone size, which can be seen on CT Stonography and BMI and renal function through urine per 24 hours.

Results: From the statistical results, the stone size has a value of p = 0.000, which means that it affects the stone-free number after undergoing ESWL and the PR value is 22.8, which means the chance for residuals in stone is ≥10mm, 22.8 times greater than on stones that are <10mm. There were no statistically significant differences in other risk factors, such as location (p=0.434), SSD (p=1.000), stone density (p=0.098), BMI (p=0.175). Multivariate statistical tests with logistic regression analysis showed that stone size is statistically significant as a potential risk factor for stone-free numbers (OR: 0.003, p=0.02).

Conclusion: The risk factors for stone size were found to be very significant in influencing stone free numbers in patients with kidney stones who will undergo ESWL so that through the size of the stones we can determine the therapeutic modalities that we will give patients to be more precise, more time efficient and financing.

Keywords: kidney stone, stone free numbers, ESWL.

Risk factors affecting prostatic volume enlargement in benign prostatic hyperplasia patients who underwent transurethral resection of the prostate

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Background: Benign Prostatic Hyperplasia (BPH) is a common degenerative disease. Many contributing factors affect BPH. Many previous studies have not concluded which factors most affecting BPH. This study is aimed at figuring out whether aging, urinary tract infection, diabetes mellitus (DM), obesity, dyslipidemia, testosterone level, PSA level, TNF-α and TGF-β level in prostatic tissue is the most affecting factor to prostatic volume.

Methods: This is an analytical retrospective cohort study with data collected from the medical record. We enrolled 83 BPH Balinese patients underwent TURP with benign histopathologic results.

Results: The baseline data were not significantly different. Spearman’s test was used to find the correlation between risk factors and prostatic volume. There was a positive correlation between PSA level and prostatic volume (p<0.001) and between testosterone level and prostatic volume (p=0.059). Linear regression concluded that PSA level and testosterone level affect the prostatic volume. For every 1 ng/ml raise in PSA value, there will be 1.4 ml prostatic volume enlargement (p<0.001) and for every 1 ng/ml rise in testosterone level, there will be 0.024 ml prostatic volume enlargement (p=0.005). Pathway analysis showed significant positive two-way correlation between DM and obesity (coefficient 0.191, p=0.005), DM and dyslipidemia (coefficient 0.323, p<0.001), and TNF-α and TGF-β (coefficient 0.515, p<0.001). We also found a negative correlation between DM and PSA level (coefficient -0.227, p<0.001) and negative indirect correlation between DM and prostatic volume via PSA (coefficient -0.187, p=0.005).

Conclusions: PSA level and testosterone level are the most affecting factors and have direct effects on the prostatic volume. DM, obesity, and dyslipidemia also give indirect effects to the prostatic volume enlargement.

Keywords: benign prostatic hyperplasia, PSA, testosterone, diabetes mellitus.
Bladder stone in child : case report

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Background: Bladder stones account for approximately 5% of all urinary system stones. Bladder stones are still often experienced by children in poor or rural areas, with an estimated incidence of 1: 10,000, most common in children younger than the age of 10 and much more common in boys than in girls. The etiology in children is largely unknown. Symptoms lower abdominal pain or pelvic pain occurs in approximately 50% of childhood cases and hematuria, either microscopic or macroscopic, has been reported in 33—90% of children with stones.

Case: Patient, a fourteen-year-old boy, presented with recurrent episodes of difficulty voiding and lower abdominal pain about one year. Patient had moderate malnutrition. Work up included clinical evaluation, laboratory and radiologic assessments, results of which informed surgical intervention open vesicolithotomy under general anesthesia for bladder stone extraction, founded a giant stone 5 x 3 cm in size. Surgery proceeded smoothly and there were no complications. Biopsy showed there was no malignancy process. In the three months after surgical, the patient has remained symptom-free and has experienced no further stone formation.

Conclusions: Symptoms of bladder stones in children are unclear. Early diagnosis and prompt treatment give a good result and good prognosis too. Malnutrition and infection are risk factors related to this case.

Keywords: Bladder stone, children, open vesicolithotomy.

Recurrent renal squamous cell carcinoma following nephrectomy: a case report

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Background: Squamous cell carcinoma of the kidney is a rare neoplasm and commonly found incidentally after procedure regarding renal calculi such as nephrectomy.

Case: A 42-year-old had intermittent right flank pain for three weeks prior. Patient also complained there was intermittent, painless hematuria. Plain radiograph and Ultrasound suggest Staghorn Calculi with severe hydronephrosis on the right kidney. Patient then underwent Primary Right Nephrectomy. Histopathologic examination of renal tissue revealed features of 2nd Grade Squamous Cell Carcinoma. Three months later the patient felt a flank mass and pain on the right side. Abdominal CT examination reveals retroperitoneal mass with infiltration to Abdomen Muscles and Part of the Ascending Colon. Radical Retroperitoneal Mass Excision with Right Hemicolectomy was done. Histopathology shows 2nd grade Squamous Cell Carcinoma Infiltration to the colon. The patient will be planned for adjuvant chemotherapy with Paclitaxel-Carboplatin Regimen 4 Weeks after surgery.

Conclusion: Renal Squamous Cell Carcinoma is a rare neoplasm and progressive disease. It is commonly associated with chronic inflammation such as renal calculi. Aggressive combined therapy which consists of Surgery, Chemotherapy, or Radiotherapy was needed to achieve a better outcome.

Keywords: squamous cell carcinoma of the kidney, recidive squamous cell carcinoma

Open heminephrectomy in unilateral duplex collecting system and complete ureteral duplication with poorly functioning upper pole: a case report

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Background: A duplex collecting system with complete ureteral duplication is unusual renal tract abnormality. Surgical management is indicated in patients with urinary tract obstruction, related-recurrent urinary tract infection (UTI), and/or impaired renal function. Several surgical methods which commonly used are: heminephrectomy, ureteroneocystostomy, or ureteroureterostomy.

Case: A 2-year old girl with recurrent UTI and hydronephrosis of right kidney; was referred from pediatric department. Physical and laboratory examination revealed bulging and ballottement on the patient’s right flank and evidence of UTI. Computed tomography showed unilateral duplex collecting system of right kidney with complete ureteral duplication, right uretercele, and poorly functioning upper pole. Diagnostic urethrocystoscopy followed by retrograde pyelography (RPG) revealed two right ureteral orifices and one left ureteral orifice, with upper pole ureter opens caudomedially while the lower pole ureter opens cranialuradially. Heminephrectomy of poorly functioning upper pole of right kidney was done in our hospital. Operation took 3 hours with estimated blood loss of 250 cc. Patient was discharged 5 days after the procedure. No major intraoperative or postoperative complications were found. Follow up revealed no recurrent UTIs.

Conclusion: Duplex collecting system with complete ureteral duplication is uncommon in pediatric patients. Knowing the indication of surgical management and associated malformation is very important. Heminephrectomy is one of many best ways of surgical treatment.

Keywords: duplex collecting system, complete ureteral duplication, recurrent UTI, heminephrectomy

Profile of genitourinary trauma in Dr. Moewardi General Hospital Surakarta, January – December 2018

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Introduction: Urogenital injuries are the most common cause of morbidity and mortality in juvenile and adolescence. Prevalence of urogenital injuries was
decreased in last two decades and most of them were managed conservatively. We analyze our data of urogenital injuries in Moewardi general hospital to know our prevalence and its management.

**Method:** We retrospectively reviewed the medical records of the patients with Urogenital injury who admitted to our department in January until December 2018. We collected data regarding demographic characteristic, injury characteristic, mode of injury, and also the management of injury.

**Results:** During January until December 2018, a total of urogenital injuries was 74 patients with 8 patients had more than one urogenital injury. It consisted of 40 cases (55.5%) were kidney injuries, 2 cases (2.7%) were ureteral injuries, 10 cases (13.8%) were bladder injuries, 24 cases (33.3%) were urethral injuries, and also 4 cases (5.5%) were external genitalia injuries. Males with frequency of 60 patients (81.1%) and females were 14 patients (18.9%). Patients mean age was 32.87 ± 16.7 years mostly between 17 and 29 years (40.5%). 27 of the studied population had associated injuries. The most frequent associated injuries were occurred in pelvic and anorectal (37%) and the less in maxillofacial injuries (3%). Traffic accident with frequency of 72.9% was the most mechanism of trauma and followed by fall from height with frequency 18.9% and iatrogenic trauma with frequency of 8.2%. 39 patients (52.7%) were managed conservatively. 66 patients (89.1%) came to hospital with stable hemodynamic and 8 patients (10.9%) with unstable hemodynamics. 1 patient with unstable hemodynamic died within less than 48 hours after performed laparotomy.

**Conclusion:** Based on this study, we can conclude that the number of urogenital injury at Dr. Moewardi General Hospital was same with others journal and literature. Also most of its management was nonoperative management with good outcome.

**Keywords:** urogenital injury, prevalence, management.

### Profile of urinary stone cases in Wahidin Sudirohusodo Hospital Makassar period January 2015 – December 2017

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**Background:** To date urinary stone disease is still the significant health issue in the world. In Asia, regions with high incidence of urinary stone disease lie from Sudan, Saudi Arabia, United Arab Emirate, Pakistan, India, Myanmar, Thailand, Indonesia, and Philippine. Demographic and regional variations in the occurrence of urinary stones may provide clues to their etiology and prevention. This study aimed to describe the characteristics of urinary stone patients and their treatment in Wahidin Sudirohusodo Hospital, Makassar from 2015 to 2017.

**Method:** This was a descriptive retrospective study which utilized data from patients’ medical record in Wahidin Sudirohusodo hospital from 2015 to 2017. Data consisted of demographic and clinical characteristics and their treatment.

**Results:** Total of the 1,166 patients from 2015 to 2017, urinary stones were found more dominantly on male than female with ratio 2.21 : 1, occurred mostly in the age range of 40 – 60-year-old (58.32%) and above 60-year-old (19.64%). Significant percentage of patients were revealed having body mass index (BMI) above normal consisted of overweight 20.5% and obese 13.81%. Unilateral urinary stone cases were 89.28% of all patients and most frequent site located in kidney (59.41%). ESWL was the most frequent procedure performed covering 48.13% of all cases.

**Conclusion:** Urinary stone disease occurred mostly in the age range of 40 – 60 year old and suffered more by male than female. Most of patients had normal BMI score. Unilateral urinary stones were found far more dominant than bilateral ones. Kidney stones were the most frequent cases with ESWL as the most frequent procedure performed.

**Keywords:** urinary stone disease, BMI, unilateral, bilateral, ESWL.

### Evaluation cases of hypospadias management and postoperative complications in Wahidin Sudirohusodo Hospital Makassar period 2015-2017

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**Background:** Hypospadias is an abnormality in fetal development of the penis in which the urethra does not open from its usual location in the head of the penis. The study aims to find out the description of hypospadias occurring in Wahidin Sudirohusodo Hospital Makassar in 2015–2017.

**Method:** This study was a retrospective descriptive study by taking medical records of hypospadias with the evaluation period of the period 2015–2017, then grouped based on the distribution of the number of cases, age, type of hypospadias, chordee, types of actions and complications.

**Results:** We got 54 highest cases of hypospadias in 2017 of (20/54 cases) and the lowest in 2016 of (16/54 cases). The incidence of hypospadias is more than 11-15 years of age with 19 cases (35%). Proximal hypospadias with 65% (35 cases) followed by distal hypospadias 18% (10 cases) and middle hypospadias 17% (9 cases). Hypospadias in the presence of chordeae were 94% (51 cases) and no chordeae 6% (3 cases). The type of urethroplasty 1 stage at 76% with the number of 41 operations and 2 stage operations as many as 11% (6 cases). Complications with fistula as many as 31% (16 cases) followed by complications with stricture as much as 5% (3 cases), other complications by 5% (3 cases). Uncomplicated 59% (32 cases). Post Hypospadias repair surgery from 16 patients with fistula complications, most of which occurred in the proximal type 69% (11 cases), followed by middle type 36% (5 cases), then distal type 12% (2 cases). Of the 11 proximal type patients who received complications from fistula, more occurred during surgery aged 11-15 years with 55% (6 cases), followed by ages 6-10 years (4 cases) and age 0-5 years 9% (1 case).

**Conclusion:** During the 3 years of case evaluation there was no significant increase in incidence but most patients were tested for adolescence, mostly treated with a single stage operation. The need for awareness of patients to check themselves from the beginning to reduce and prevent complications.

**Keywords:** hypospadias, chordectomy, urethroplasty.
**ABSTRACT**

**Pelvic fracture as a risk factor for posterior urethral rupture in patients at dr. Moewardi Hospital**

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**Backgrounds:** Urethral rupture are a common complication on patients with pelvical fracture. With incidences 3-25% in patients with pelvical fracture.

**Objective:** To know the profile and analytical of pelvic fracture as a risk factor for posterior urethral rupture at dr. Moewardi Hospital Surakarta, January 2012-December 2018

**Methods:** We conducted an analytic retrospective study on the medical records of patients with pelvic fracture and posterior urethral rupture for 7 years at dr. Moewardi Hospital Surakarta, from January 2012 to December 2018. Data we've taken from the in-patient medical records at Dr. Moewardi Hospital, which included age, pelvic fracture type and posterior urethral rupture.

**Results:** A total of 48 patients with pelvic fracture, 25 patients (52%) found with posterior urethral rupture. 14 patients (29%) are in the age range 20-30 y.o. and founded that single rami fracture are the most common pelvic fracture with 19 patients (40%), single rami fracture are the most pelvical fracture that lead to posterior urethral rupture with 11 patients (odds ratio 1,47).

**Conclusion:** Single rami fracture are the most pelvical fracture that lead to posterior urethral rupture in dr. Moewardi Hospital Surakarta

**Keywords:** Pelvic fracture, posterior urethral rupture

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**A successful kidney transplantation in Sanglah Hospital in patient with multiple perioperative complications: a case report**

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**Background:** In recent years, hospital care for ESRD (End Stage Renal Disease) have improve in many ways. Numerous treatment (surgical and non surgical) have been developed to maintain or even bring back the kidney to its normal function. A successful kidney transplant offers enhanced quality of life and more effective regarding the outcome, patient satisfaction and cost-effectiveness than longterm dialysis treatment in patients with End Stage Renal Disease

**Case Description:** A 31-year-old male admitted with ESRD (End Stage Renal Disease). He did receive 4 times CAPD (Continue Ambulatory Peritoneal Dialysis) from 2013 but always having malfunction CAPD or an infection from it.

**Conclusions:** Patient with ESRD (End Stage Renal Disease) and having failure with other treatment can choose Kidney Transplantation as a better option for a better prognosis.

**Key words:** Failure of CAPD (Continue Ambulatory Peritoneal Dialysis), Kidney Transplant, ESRD (End Stage Renal Disease)

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**Musculocutaneous scrotal flap: a new surgical technique for concealed penis**

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**Background:** Conspicuous penis (CP) is a congenital abnormality in which the penis is concealed within the subcutaneous tissue. The penis appears to be fused to the scrotum, and the penile shaft is entrapped. Trapped penis is an iatrogenic concealed penis occurring due to surgical complications such as excessive removal of skin during circumcision or excessive scar formation after circumcision. It refers to a phallus that has become entrapped by a dense cicatrical scar usually following circumcision. An estimated one third of males worldwide are circumcised, with a very high prevalence in some countries and very low coverage in others. By performing the surgical procedure through a ventral approach, the ventral skin defect is created; therefore, any skin available for covering the ventral defect is deficient in most cases.

**Case description:** A 7 years old boy was brought to the Urology Emergency Unit at Sanglah Hospital by his parents due to symptoms and complaints of a hidden penis. He also had a difficulty in voiding position because urinary stream spraying, and complaints improve when squatting position. In other hand, urinary pain is denied. This boy had previously been taken to another hospital due to the hidden penis at 3 years of age and circumcision had been performed. As the complaints had not decreased, the doctor recommends a second operation when the patient is 7 years old. The glans penis could not be made to emerge, because of the presence of a circular scar on the penile skin. The boy had difficulty in urinating due to the presence of the scar on the penile skin. The boy was diagnosed with concealed penis and was taken into scrotal flap.

**Conclusion:** In conclusion, in cases with inconspicuous penis, a proper diagnosis should be made before circumcision is performed. Conspicuous penis has a variable etiology. Circumcision could be the initial cause or an aggravating factor. Early surgical correction of this problem is advocated; it relieves anxiety and improves self confidence. Surgeons dealing with these cases should have a versatile approach for surgical correction. Full thickness skin graft could be suggested as a preferable way for the skin substitution of the penile shaft due to the low contraction rate and good elasticity. However, if the diagnosis is concealed penis, more complicated surgical procedures are necessary and circumcision should not be indicated.

**Keywords:** concealed penis, trapped penis, circumcision

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**Characteristics of continuous ambulatory peritoneal dialysis (CAPD) patients at Zainoel Abidin Regional General Hospital Banda Aceh, Indonesia in January 2009 - December 2018**

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Introduction: Chronic Kidney Disease (CKD) is a condition in which the kidney permanently loses its normal function. To be able to maintain physiological conditions in CKD patients renal replacement therapy (RRT) needs to be done. Continuous Ambulatory Peritoneal Dialysis (CAPD) is one of the most commonly used renal replacement therapy.

Method: This study was a retrospective study of patients who had CAPD installation during the period January 2009 - December 2018 at the Zainoel Abidin Regional General Hospital, Banda Aceh, Indonesia. Data were collected from hospital medical records, and then a review and data collection was carried out to obtain information on the patient’s demographics, characteristics, and clinical data.

Results: From 2009-2018 a total of 235 patients were obtained for CAPD installation at Zainoel Abidin Regional General Hospital, Banda Aceh, Indonesia with 39.2% women and 60.8% men. The patient's average age is 45.48 years. As many as 86.8% of patients had no complications after CAPD, 3.4% of patients had leakage, 3.4% had SSI, 2.1% had obstruction, 3.8% had malposition, and 0.4% had peritonitis. As many as 45.1% of end stage renal disease (ESRD) patients are caused by chronic pyelonephritis (PHC), 28.5% due to diabetic kidney disease (DKD), 21.7% are due to hypertension kidney disease, and 4.6% are caused by acute glomerulonephritis (GNA).

Conclusion: Comparison of the number of men and women in CAPD patients at the Zainoel Abidin Regional General Hospital, Banda Aceh, Indonesia, which is 3:2 with an average age of 45.48 years old. The most common etiology of ESRD is hypertension.

Keywords: chronic kidney disease, renal replacement therapy, CAPD, complications.

Ten years characteristics of priapism at West Java's top referral hospital, Indonesia

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Background: Priapism is a complete or partial penile tumescence that continues for longer than 4 hours. Most cases of priapism are idiopathic, with 21% of the cases were associated with alcohol or drug abuse, 12% were associated with perineal trauma, and 11% were associated with sickle cell disease. The majority cases were ischemic priapism that commonly presents with pain. Without prompt treatment, erectile tissue may be damaged and loss of sexual function. This study was aimed to describe the characteristic of patients with priapism admitted in Emergency Department in Hasan Sadikin General Hospital Bandung in 2008 – 2018.

Methods: A retrospective medical record review was performed on 15 patients admitted to the Emergency Department in Hasan Sadikin General Hospital from 2008 to 2018 diagnosed with priapism. We collected sociodemographic data, etiology, classification of priapism, management, and Erection Hardness Score (EHS) pre and 6 months post-operative.

Results: The study consisted of 15 patients diagnosed with priapism. The age is ranging from 16 – 58 years old, median was 34 years with 14 patients (93.3%) were older than 18 years old. They were classified into low flow (ischemic) and high flow (nonischemic) type that found in 14 patients (93.3%) and 1 patient (6.7%) respectively. The etiologies of the priapism were Chronic Myeloid Leukemia in 13 patient (86.6%), idiopathic in 1 patient (6.7%) and alcohol intoxication in 1 patient (6.7%). The vast majority of the cases was treated successfully surgically using distal surgical shunts known as corporoglanular (Winter) shunt in 14 patient (93.3%), with only 1 case of non-ischemic priapism treated conservatively (6.7%). Duration of erection varied from 24 to 120 hours (median 72 hours), with 1 patient (6.7%) had history of recurrent priapism at 24 months before. The median of EHS pre and 6 months post-operative were 4 and 2 individually.

Conclusion: The majority of the cases were ischemic priapism with the main etiology Chronic Myeloid Leukemia. Most of the patients were treated with corporoglanular (Winter) shunt. Duration of erection varied from 24 to 120 hours (median 72 hours), with 1 patient had history of recurrent priapism at 24 months before. EHS decreased from 4 points pre-operative to 2 points 6 months postoperative. Over the follow-up, it showed successful outcome in achieving detumescence of the penis.

Keyword: chronic myeloid leukemia, emergency, management, priapism.

Characteristic of incarcerated inguinal hernia patients at Dr Hasan Sadikin Hospital in period January 2016 – January 2017

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Introduction: Until now there have been many studies on the characteristics of incarcerated hernia, but studies in the Asian region are still lacking while there are racial differences that can affect the characteristics of incarcerated hernias. Therefore, this study aims to determine the characteristics of incarcerated inguinal hernia in Asian populations especially Indonesia by using a patient population in Dr. Hasan Sadikin Hospital Bandung.

Methods: This was a descriptive retrospective study of all incarcerated inguinal hernia patients admitted to the emergency department (ED) of Hasan Sadikin Hospital, between January 2016 and January 2017. Patients diagnosed with femoral hernia and reducible inguinal hernia were exclude. The data is taken from the patient’s medical record data, then entered in Microsoft Excel and analyzed.

Results: This study includes 105 patients with incarcerated inguinal hernia were recorded. Based on the distribution of gender all patients are Male. Average age was 47 years old at range 15-85 years old. From the study about 89 patients (84.7%) were came into emergency room with complain of lump without pain. The most risk factor of developing incarcerated inguinal hernia (96.1%). We found that 88 hernia sacs of contain of ileum, it is explained by the anatomical of ileum.

Conclusion: Right side inguinal is the most predisposition location of incarcerated hernia, and ileum entrapment is the most intra operative finding and most of indication of bowel resection in operative finding is necrosis of ileum. Tension free herniorrhaphy is the gold standard technique to close the defect from the hernia.

Key words: Inguinal hernia, Hernia incarcerated
Fournier’s gangrene case profile in Dr. Wahidin Sudirohusodo Hospital Makassar, period of January 2012 - December 2017

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Background: Fournier’s gangrene is an emergency case in the field of urology because its onset suddenly, rapidly easily developed, can be a widespread gangrene and lead to a septicemia. This study aims to find out some parameters that affect disease worsening and its prognosis. This study aims to find out the number of Fournier’s gangrene cases in Dr. RSUP Wahidin Sudirohusodo since of January 2012 - December 2017, based on age distribution, instantaneous blood sugar levels, albumin levels, length of treatment, and early treatment of initial management.

Methods: Retrospective data from medical records of Fournier’s gangrene patients treated under Urology Division in Dr. Wahidin Sudirohusodo Hospital, during the period of January 2012 to December 2017. From the data obtained were recorded age, instantaneous blood sugar levels, albumin levels, length of treatment, early treatment of initial management.

Results: Twelve Fournier’s gangrene sufferers with an average age above 50 years were 8 people (66.66%). While the mean blood sugar level is above 200 mg / dl, there are 9 people (75%). For albumin levels, all sufferers were below the normal rate (3.5 gr / dl) of 12 people (100%). The maximum length of treatment between 22-30 days is 4 people (33.33%). With the most initial management time is less than 6 hours, 5 people (41.67%).

Conclusion: Overall, the number of Fournier’s gangrene sufferers is actually not enough based on data obtained over the past 6 years, but properity, rapidity and accurate handling must always be sought to reduce the mortality rate of these patients.

Keywords: Fournier’s Gengren, Epidemiology, Management, Prognosis.

Relationship between Prostate Specific Antigen (PSA) with prostate-epithelial stromal ratio among Benign Prostatic Hyperplasia (BPH) patients

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Background: Benign Prostatic Hyperplasia is the most common benign lesion in male. Imbalance between proliferation and apoptotic is the cause of benign prostatic hyperplasia. Epithelial and stromal growths are associated with active proliferation that influenced by many factors and mechanism, including Epithelial Mesenchymal Transition. Prostate Specific Antigen (BPH) has role in prostate's stromal epithelial ratio changing in patient with benign prostatic hyperplasia. Aim of the study is to determine the correlation between Prostate Specific Antigen with stromal epithelial ratio of prostate in patient with benign prostate hyperplasia.

Methods: 83 BPH patients, 50 to 80 years old with 20 to 80 grams prostates from ultrasound examination who underwent prostate trans uretra resection, had blood PSA examination and prostate specimens’ examination to evaluate the stromal epithelial ratio. The data will be analyze statistically.

Result: Prostate Specific Antigen has negative correlation with stromal epithelial ratio r -0.28 with p 0.01. PSA is autocrine for epithelial cells and paracrine for stromal cells and stimulate proliferations in both cells.

Conclusion: Prostate specific antigen has negative correlation with stromal epithelial ratio.

Keywords: benign prostatic hyperplasia, stromal epithelial ratio, prostate specific antigen
Severe atelectasis in patients with myasthenia gravis underwent extended thymectomy at Prof. Dr. dr. R.D. Kandou Manado Hospital: serial case report

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Background: Atelectasis is one of the postoperative complications, about 90 percent of all postoperative lung complications. Onset is within the first 24 hours after surgery. Obstruction along with the distal gas absorption is the main pathology; bronchopulmonary retention is the most common cause. Bronchoscopy is a modality of diagnosis and therapy of atelectasis.

Case: We reported Case 1, the 23-year-old man with the history of surgery Thoracotomy Timomectomi accompanied Miastenia Crisis, with adequate treatment for 5 days. In the physical examination of the right lung not found breath noise. Investigation of Thorax X-Ray found the presence of right lung Atelelasis; bronchoscopy was performed then found mucus plaque on superior and right inferior lobar bronchi, then evacuated. Conducted evaluation after bronchoscopy found normal Thorax X-Ray. Case 2, women aged 35 years old with a history of Thoracotomy Timomectomi surgery accompanied Miastenia Crisis, with adequate treatment for 4 days. In the physical examination of the right lung not found breath noise. Investigation of Thorax X-Ray found the presence of right lung Atelelasis; bronchoscopy was performed then found mucus plaque on the right inferior lobar bronchi dextra, then evacuated. Conducted evaluation after bronchoscopy found normal in Thorax X-Ray.

Conclusion: Early Bronchoscopy followed by the evacuation of mucus plaque is the best option for use in the treatment of severe atelectasis even in the case of Post Extended Thymomectomy after mucus plaque occurs.

Keywords: atelectasis, myasthenia crisis, bronchoscopy, mucus plaque

New technique wrapping of an ascending aortic aneurysm in 4 patient undergoing on-pump

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Background: Ascending aortic aneurysms are usually treated with reattachment of the 2 main coronary arteries was originally described by Bentall and De Bono. The Bentall procedure has led the way for the development of new techniques for root replacement, such as aortic valve-sparing procedures. The potential advantage of these procedures is freedom from the need for anticoagulation and consequent low morbidity. Although the Bentall procedure is a durable operation, with a low ascending aorta and valve reoperation rate, the replacement of the aortic valve with a mechanical prosthesis carries a significant lifetime risk of both thromboembolism and major hemorrhagic complications. However, if a candidate for this case has an enlarged ascending aorta, surgeons may consider wrapping on-pump cardiopulmonary bypass.

Case: Wrapping of the ascending aorta, with or without aortoplasty, is an alternative surgical procedure that can be performed to treat ascending aortic aneurysms. It has several advantages over graft replacement, such as less bleeding, shorter cardiopulmonary bypass and aortic cross-clamping time, and lower rates of morbidity and mortality. Here, we report new technique wrapping of an ascending aortic aneurysm in 4 patients which have diameter more than 50 mm which successfully with on-pump atrial valve replacement, at Dr. Kariadi Hospital.

Conclusion: We successfully performed wrapping of the ascending aorta using new technique for an ascending aortic aneurysm with on-pump atrial valve replacement. Although the early outcome of the present case was satisfactory, long-term follow-up is warranted, particularly to address concerns about the risk for reoperation and mortality rate.

Keywords: ascending aortic aneurysm; wrapping aorta; on-pump.

Mature mediastinal teratoma: a case report

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Background: Teratoma is the neoplasm that has more than one germinal tissue component. Teratoma mostly found in ovarium, testicle, retroperitoneal organ, sacrococcygeal region, and rarely found in mediastium. We made this report because mediastinal teratoma has a small incidence, with hidden location, wide spectrum of clinical appearance, strange microscopic appearance, and unpredictable growth.

Case report: We present 15-years-old women with chief complaint is chest pain in the right hemithorax with chronic cough. The working diagnosis had been made with thorax X-Ray and also Thorax CT scan with contrast study. The patient underwent thoracotomy and total tumor resection. Definitive diagnosis has been made after Histopathological examination.

Conclusion: Teratoma is one of the rare tumors that happened in mediastinum. Usually it grows slowly and mostly asymptomatic. The management of this case is a total resection of the tumor. The Prognosis is relatively worse in adult compared to pediatric patient.

Keywords: Mediastinal teratoma, Mediastinal tumor.

Comparison of the effectiveness of the heparin dose locks against short-term double lumen catheter malfunction in patients with renal failure with hemodialysis

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ABSTRACT

Severe atelectasis in patients with myasthenia gravis underwent extended thymectomy at Prof. Dr. dr. R.D. Kandou Manado Hospital: serial case report

New technique wrapping of an ascending aortic aneurysm in 4 patient undergoing on-pump

Mature mediastinal teratoma: a case report

Comparison of the effectiveness of the heparin dose locks against short-term double lumen catheter malfunction in patients with renal failure with hemodialysis
ABSTRACT

Background: Patients with renal failure who have hemodialysis using short-term double lumen catheter given heparin lock were still having complications such as thrombosis, infection, and bleeding. This study aimed to find a way to administer doses of heparin lock between 5000 U/mL, 2500 U/mL, and 1000 U/mL.

Methods: This is a quasi-experimental study in renal failure patients undergoing hemodialysis using a double lumen catheter with heparin lock which is attached to the right internal jugular vein. Thirty-four research subjects were divided into three groups based on the given heparin lock dose, ie group one (12 people) were given a dose of 5000 U/ml, group two (12 people) were given a dose of 2500 U/ml, and group three (10 people) given a dose of 1000 U/ml. The research data were analyzed using univariate and bivariate analysis.

Results: The mean age of 52 ± 12.8 years in group one, 49.6 ± 16.9 years in group two, and 52.2 ± 15.6 years in group three. APTT examination, shortly after the installation of a double lumen catheter with heparin lock, the prolongation of aPTT in groups 1, 2, and 3 was 2.9 seconds, 9.3 seconds and 3.1 seconds. The number of platelets after the installation of double lumen decreased from the initial platelet count, namely in group 1 as much as -57µL, in group 2 as much as -41.8µL, and -29.3µL in group 3. In the second week there was an increase in platelet count from the first day in all groups. There was an increase in the number of leucocytes which was 0.8µL in group 1, 0.2µL in group 2, and 0.4µL in group 3. In the second week the number of leucocytes was still increased in all groups. Group 1 becomes 0.9µL, in group 2 it becomes 0.7µL, and in group 3 becomes 0.7µL. In the third week, there was a decrease in the number of leucocytes in all three groups. Examination of aPTT, platelets, leucocytes, and complications that arise, there is no statistically significant.

Conclusion: The third dose of heparin lock is safe to use, but a dose of 2500 U/mL has fewer complications.

Keywords: Heparin lock dose, short-term double lumen catheter malfunction.

Two years case evaluation of blunt chest trauma on Dr. Wahidin Sudirohusodo Hospital, Makassar, Indonesia

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Background: Chest trauma is the main death caused on age group below 35 years old and happens almost 50% from traffic accident. Only 10% of blunt chest trauma needs operative management/surgery.

Method: We describe retrospectively 224 cases of blunt chest trauma from medical record from January 2015 until December 2017.

Result: Of the 224 cases included in this study, about 189 patients were male (84.38%) and 35 patients were female (15.62%), 173 cases caused by traffic accident (77.23%), the most trauma at age group 16-30 with 66 cases (29.46%), hemothorax was the most intrathoracic disorder with 71 cases (31.7%). About 141 cases we managed with intrathoracic tube drainage (62.95%), head injury was the most concomitant trauma with 40 cases (17.86%), we had 27 death cases (12.05%).

Conclusion: Blunt chest trauma is one of the most death cause at young age, early treatment could increase the survivability.

Keywords: blunt chest trauma, rib fracture, hemothorax.

Case report: the lucky boy, penetrating cervicothoracic injury

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Introduction: Chest trauma has quickly risen to be the second most common traumatic injury in non-intentional trauma. Trauma to the chest is also associated with the highest mortality thereby a quick diagnosis and appropriate management is very crucial.

Case: A 11-year-old male was admitted to hospital after suffering a stab wound to his chest. In the emergency department (ed), the patient is awake and fully aware. On physical examination, he has two stab wounds in his left thorax that came through his right chest, one is below of left armpit as the entry of the foreign body and one on the lateral side of right neck and a long iron building was found entirely embedded on it, but no fatal injury occurred. There is no bubbling of air from the wounds. His trachea is midline. The heart sounds are single and the rate is regular without murmurs. The abdomen is soft and non-tender. The patient is rolled over to his back and no injuries are seen. We performed debridement and exploration to extract the foreign body.

Conclusion: A complete primary, secondary, and tertiary survey should be completed to avoid missed or confounding injuries. The key to reducing the morbidity and mortality is prompt resuscitation, diagnosis, and management.

Keywords: thoracic, trauma, stab wound, iron materials.

Reexpansion pulmonary edema after surgical intervention: a literature review

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Background: Reexpansion Pulmonary Edema is a rare life-threatening condition that occur when a lung that has collapsed for more than several days is rapidly reexpanded. It can occur in many chronically collapsed lung such as pneumothorax, pleural effusion, or malignancies. The problem that we face nowadays is the epidemiology of RPE is not well known yet. Reviews on the topic cover around a hundred cases up to the end of twentieth century. It is estimated that its incidence is up to 1% after drainage of intrapleural air or fluid. This literature research objective is mainly to give us a surgeon an eye view about reexpansion pulmonary edema after surgical intervention and how to treat them when it does occur based on the latest research that have being...
Methods: To obtain reference we conduct literature search on pubmed for related articles by searching words (((reexpansion pulmonary edema>Title/Abstract)) OR reexpansion pulmonary edema(MeSH Terms)) AND ((surgery>Title/Abstract)) OR surgery(MeSH Terms)). Searching with the keyword result on 86 result on pubmed and after we limit the result on free full text, publication date for the last 10 years and human subject, only 12 articles remain. After title and abstract screening only 10 journals were selected for full paper screening. Hereby we presented list of journals that we have screened and the explanations from each research about their goals, patients' characteristics, method, results and conclusions.

Results: Predicting RPE occurrence is of fundamental importance in patients at risk for developing this condition and was even the subject of recommendations of the British Thoracic Society. Some authors suggest that the use of corticosteroids as stabilizers of the pulmonary vascular membrane. More invasive measures are also described, such as occlusion of the pulmonary artery of the affected side and use of extracorporeal membrane oxygenation, slow drainage, up to 1,5 L., and use of pleural pressure manometry.

Conclusion: Several literatures suggest that the corticosteroids had a beneficial effect as stabilizers of the pulmonary vascular membrane

Keywords: reexpansion, pulmonary edema, surgical

Open window thoracostomy for critically ill patients at RSUP Prof. Dr. R D Kandow, Manado: case report

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Background: Empyema patients in North Sulawesi often come with sepsis. The most common causes are found with active TB and Diabetes Mellitus type II. The first management of chest tube installation is sometimes ineffective in improving the patient’s condition.

Case Description: In this case series report, we report 2 cases of clinically severe empyema, bronchopleural fistula, diabetes mellitus, and tuberculosis, which did not improve after WSD was performed. We carry out open window thoracostomy that are relatively easy, fast and efficient. The length of treatment at the hospital is reduced. Treatment of open windows in outpatient services starts from once in 3 days to once in 7 days depending on the wound.

Conclusion: Open window thoracostomy is very effective and easy to do as the first operation management if WSD is not successful.

Keywords: open window, thoracostomy, case report

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