

Characteristics of non-genital warts in the dermatovenereology department of Mangusada Badung General Hospital during in 2019



Efbri Chairesia Dalitan^{1*}, Anak Agung Ari Agung Kayika Silayukti²

ABSTRACT

Background: Non-genital warts are a very common and benign skin disease caused by low-risk Human Papilloma Virus (HPV) infection. Common warts, flat warts, and plantar warts are common clinical manifestations of non-genital warts and are caused by many different types of HPV. Data on the prevalence or incidence of non-genital warts in Bali is still very limited. Therefore, it is important to identify the incidence and prevalence as a reference for conducting further studies on non-genital warts cases. This research studied the incidence, distribution, and characteristics of non-genital warts at Mangusada Badung General Hospital.

Methods: Descriptive cross-sectional retrospective study, using secondary data from outpatient clinic's patient register book and medical records in a period of 1 year, from January 1 - December 31 2019. Variables that included are types of non-genital warts, age and sex. Data were analyzed with SPSS 18 for Windows.

Results: The number of patients in this research was 3086. The incidence of non-genital warts was 88 cases (2.85%). Common wart was the most frequent findings, with 82 cases (93.2%) and flat wart with 6 cases (6.8%). Non-genital warts frequency was highest among age 11-20, with 31 cases (35.2%). Based on sex, non-genital warts are more frequent in males than females (56.8% vs. 43.2%). The most frequent non-genital warts cases in the male population occur at age 11-20 (20 cases), while in female populations, 11-20 and 21-30 share the same incidence of non-genital warts (11 cases).

Conclusion: Non-genital warts most likely to affect a male compare to the female population. It tends to occur more frequently in children and young adults. The common wart is the most frequent findings in non-genital warts.

Keywords: Non-genital warts, common wart, flat wart, plantar wart.

Cite This Article: Dalitan, E.C., Silayukti, A.A.A.A.K. 2021. Characteristics of non-genital warts in the dermatovenereology department of Mangusada Badung General Hospital during in 2019. *Bali Medical Journal* 10(1): 66-68. DOI: 10.15562/bmj.v10i1.2038

¹Intern Doctor at Department of Dermatology and Venereology, Mangusada Badung General Hospital, Badung, Bali, Indonesia;

²Department of Dermatology and Venereology, Mangusada Badung General Hospital, Badung, Bali, Indonesia

*Corresponding author:

Efbri Chairesia Dalitan;
Intern Doctor at Department of Dermatology and Venereology, Mangusada Badung General Hospital, Badung, Bali, Indonesia;
efbridalitan@gmail.com

Received: 2020-10-21

Accepted: 2021-03-16

Published: 2021-04-01

INTRODUCTION

Non-genital warts are epidermal hyperplasia caused by infection with the Human Papilloma Virus (HPV).¹ Non-genital warts are subdivided on anatomical or morphological grounds into the common wart, plantar wart, and flat wart, caused by many different types of HPV.²⁻⁴ HPV infection occur worldwide, can affect all age and races, can last months or years, and the incidence rate between male and female is the same. Non-genital warts are most common in children and young adults, where 30%

- 70% of school-age children have non-genital warts.^{5,6} There are few reliable data on the incidence and prevalence of non-genital warts. Prevalence can vary widely between different age groups, populations, and periods. Two large population-based studies found the prevalence rate of non-genital warts in the United States was 0.84% and in Russia was 12.9%. The highest prevalence was in children and young adults. Two studies in the school population showed a prevalence rate of 12% in children age 4 to 6 in the UK and 24% at 16 to 18 age in Australia.⁷

Treatment of non-genital warts aims to relieve both physical and psychological discomfort in the patient and prevent the spread of infection. Recurrence is common in all treatment modalities and is more common in immunocompromised patients with non-genital warts. Some of the treatment options include topical and surgical procedures aimed at destroying or removing the lesion.^{1,2,8} Data on the prevalence or incidence of non-genital warts in Bali is still very limited. Therefore, it is important to identify the incidence, prevalence and characteristics as a

reference for conducting further studies on non-genital warts cases.

METHODS

This research is a descriptive cross-sectional retrospective study using secondary data from the patient register book and medical records in dermatovenereology outpatient clinic Mangusada Badung general hospital. This research was carried out from February to May 2020. This study's sample was all new cases of non-genital warts at dermatovenereology outpatient clinic Mangusada Badung General Hospital from 1 January – 31 December 2019 that meet the inclusion and exclusion criteria. This study's inclusion criteria were new cases of non-genital warts, and the exclusion criteria were re-visit non-genital warts patients cases of genital warts. The variables included in this study were non-genital warts, common warts, flat warts, plantar warts, age and sex. Data were analyzed with SPSS 18 for windows. We presented the categorical data with numbers and percentages and provided cross-tabulation for age and sex variables.

RESULTS

In a period of 1 year, from January 1 - December 31, 2019, the number of patients in dermatovenereology outpatient clinic Mangusada Badung general hospital was 3086. The incidence of non-genital warts was 88 cases (2.85%) (Table 1). Based on sex, non-genital warts were more frequent in the male population (50 cases) compared to the female population (38 cases) (56.8% vs. 43.2%). Non-genital warts frequency was highest among age 11-20 years, with 31 cases (35.2%). The mean age of non-genital warts patients was 26.18 years. The youngest age is four, and the oldest was 70. Common wart was the most frequent findings, with 82 cases (93.2%), flat wart with 6 cases (6.8%), and no plantar wart case found. The common wart of all the patients in the dermatovenereology outpatient clinic Mangusada Badung General Hospital was 2.66%, and the flat wart was 0.2%. Common warts were more frequent in the male population (47 cases) compared to the female population (35 cases) (57.3% vs. 42.7%). Common wart

frequency was highest among ages 11-20, with 30 cases (36.6%). The mean age of common warts patients was 26.2 years. The youngest age was four, and the oldest was 70. The flat wart incidence was equal between males (3 cases) and females (3 cases). Flat wart frequency was highest in both age groups, 11-20 and 41-50, with 2 cases (33.3%). The mean age of flat warts patients was 26 years. The youngest age was eight, and the oldest was 43. The most frequent non-genital warts cases in the male population occurred at age 11-20 (20 cases), while in female populations, 11-20 and 21-30 shared the same incidence of non-genital warts (11 cases).

DISCUSSION

The incidence of non-genital warts was 2.85%. This result was higher than the case in the United States, where the prevalence of non-genital warts was 0.84%, but lower when compared to a study in Russia where the prevalence of non-genital warts was 12.9%. There is little data on the incidence and prevalence of non-genital warts,

especially in Indonesia.⁷

Common wart was the most frequent findings, with 82 cases (93.2%), flat wart with 6 cases (6.8%), and no plantar wart case found. This result is similar to a study conducted by Ghadgepatil et al. in a district in India where out of 90 cases of non-genital warts that were found, the most were common warts (42%), then palmoplantar warts (20%) and flat warts (18%).³ The incidence of common warts of all the patients in dermatovenereology outpatient clinic Mangusada Badung general hospital was 2.66%. This result is higher than a study conducted by Tampi et al. at dermatovenereology outpatient clinic Prof. Dr. R. D. Kandou hospital in 2013, where common wart incidence was 1.05%.⁹

Non-genital warts frequency was highest among age 11-20, with 31 cases (35.2%). This result showed similarity from a study conducted by Liu et al., where the highest number of cases was found in the age group 14-20, with 119 cases (55%). These results support the theoretical basis that non-genital warts can affect any age

Table 1. Characteristics of non-genital warts

Characteristics	Non-genital wart		Total N=88 (100%)
	Common wart n=82 (93.2%)	Flat wart n=6 (6.8%)	
Age (years)			
<= 10	9 (11.0)	1 (16.7)	10 (11.4)
11 – 20	30 (36.6)	1 (16.7)	31 (35.2)
21 – 30	23 (28.0)	2 (33.3)	25 (28.4)
31 – 40	1 (1.2)	0 (0)	1 (1.1)
41 – 50	9 (11.0)	2 (33.3)	11 (12.5)
51 – 60	5 (6.1)	0 (0)	5 (5.7)
61 – 70	5 (6.1)	0 (0)	5 (5.7)
Sex			
Male	47 (57.3)	3 (50.0)	50 (56.8)
Female	35 (42.7)	3 (50.0)	38 (43.2)

Table 2. Non-genital warts distribution according to age and sex

Age (years)		Sex		Total (%)
		Male (%)	Female (%)	
<=10		4 (8.0)	6 (15.8)	10 (11.4)
11 – 20		20 (40.0)	11 (28.9)	31 (35.2)
21 – 30		14 (28.0)	11 (28.9)	25 (28.4)
31 – 40		0 (0.0)	1 (2.6)	1 (1.1)
41 – 50		5 (10.0)	6 (15.8)	11 (12.5)
51 – 60		3 (6.0)	2 (5.3)	5 (5.7)
61 – 70		4 (8.0)	1 (2.6)	5 (5.7)
Total		50 (56.8)	38 (43.2)	88 (100)

and occur mostly in children and young adults.^{4,7,10}

Common wart frequency was highest among age 11-20, with 30 cases (36.6%) in this study. A study conducted by Jonathan et al. also showed that the highest common wart frequency age group was children to young adults, age 5-14 (25.9%) and age 15-24 (37%).¹¹ Flat wart frequency was highest in age groups 11-20 and 41-50, with 2 cases (33.3%). This result is different from a study conducted by Ghadgepatil et al., where flat wart incidence occurs most often in the age group 1-10.³ These results could be due to the lack of flat wart cases in dermatovenereology outpatient clinic Mangusada Badung General Hospital. Patients with flat warts rarely come for treatment because complaints tend to be mild, minor cosmetic complaints and often considered non-diseases.³

Based on sex, non-genital warts are more frequent in the male population than the female population (56.8% vs. 43.2%). This result is similar to a study conducted by Ghadgepatil et al., where the incidence rate in males (66%) was higher than in females (34%).³ Liu et al. was also found that the incidence rate in males (61.4) was higher than in females (38.6). These may occur because men tend to have more outdoor activities that make them more vulnerable to HPV contact. However, this study's result is still relevant to the theoretical basis that the incidence is equal in males and females slightly different.^{3,10}

Common warts are more frequent in the male population than female populations (57.3% vs. 42.7%). This result is similar to a study conducted by Dalimunthe et al., where the incidence rate in males (58.8%) was higher than that of females (42.2%).¹² Incidence of flat wart in this study is equal between male and female. This result is different from a study conducted by Ghadgepatil et al., where the incidence rate in males (55.6%) was higher than that of females (44.4%).³ These could be due to the lack of flat wart cases found in dermatovenereology outpatient clinic Mangusada Badung general hospital. Patients with flat warts rarely come for treatment because complaints tend to be mild, minor cosmetic complaints and often considered non-diseases.

The most frequent non-genital warts cases in the male population occur at age 11-20 (20 cases), while in the female population, age groups 11-20 and 21-30 share the same incidence of non-genital warts (11 cases) (Table 2). This result supports the theoretical basis that non-genital warts can affect any age and occur mostly in children and young adults.^{4,7}

CONCLUSION

Non-genital warts most likely to affect a male population compared to the female population. It tends to occur more frequently in children and young adults. The common wart is the most frequent findings in non-genital warts.

DISCLOSURE

Author contribution

The first author contributed to the implementation of research, data collection, data processing, and script drafting. The second author contributed to drafting and supervising this study.

Ethical statement

Mangusada Badung General Hospital Ethics Commission approved this study with ethical clearance number 119/Kom-Dik/X/2020.

Conflict of interest

The author reports no conflicts of interest in this research.

Fundings

None.

REFERENCES

1. Sterling JC. Human Papillomavirus Infections. In: Kang S, Amagai M, Bruckner AL, Enk AH, Margolis DJ, McMichael AJ, Orringer JS, editors. Fitzpatrick's Dermatology. 9th ed. New York: McGraw-Hill; 2019. 3095 – 106 p.
2. Sterling JC, Gibbs S, Hussain SSH, Mustapa MFM, Handfield-Jones SE. British Association of Dermatologists' Guidelines for the Management of Cutaneous Warts 2014. *Br J Dermatol*. 2014;171:696 – 712. doi: [10.1111/bjd.13310](https://doi.org/10.1111/bjd.13310)
3. Ghadgepatil SS, Gupta S, Sharma YK. Clinicoepidemiological Study of Different

- Types of Warts. *Dermatol Res Pract*. 2016;7989817. doi: [10.1155/2016/7989817](https://doi.org/10.1155/2016/7989817)
4. Bruggink SC, de Koning MNC, Gussekloo J, Egberts PF, ter Schegget J, Feltkamp MCW, Bavinck JNB, Quint WGV, Assendelft WJJ, Eekhof JAH. Cutaneous Wart-Associated HPV Types: Prevalence and Relation with Patient Characteristics. *J Clin Virol*. 2012;55(3):250 – 5. doi: [10.1016/j.jcv.2012.07.014](https://doi.org/10.1016/j.jcv.2012.07.014)
5. van Haalen FM, Bruggink SC, Gussekloo J, Assendelft WJJ, Eekhof JAH. Warts in Primary Schoolchildren: Prevalence and Relation with Environmental factors. *Br J Dermatol*. 2009;161(1):148 – 52. doi: [10.1111/j.1365-2133.2009.09160.x](https://doi.org/10.1111/j.1365-2133.2009.09160.x)
6. Bruggink SC, Eekhof JAH, Egberts PF, van Blijswijk SCE, Assendelft WJJ, Gussekloo J. Natural Course of Cutaneous Warts among Primary School-children: a Prospective Cohort Study. *Ann Fam Med*. 2013;11(5):437 – 41. doi: [10.1370/afm.1508](https://doi.org/10.1370/afm.1508)
7. Loo SK, Tang WY. Warts (non-genital). *BMJ Clin Evid*. 2014; 2014: 1710. PMID: 24921240
8. Mulhem E, Pinelis S. Treatment of Nongenital Cutaneous Warts. *Am Fam Physician*. 2011;84(3):288 – 93.
9. Tampi PGI, Mawu FO, Niode NJ. Profil Veruka Vulgaris di Poliklinik Kulit dan Kelamin RSUP Prof. Dr. R. D. Kandou Manado Periode Januari – Desember 2013. *Jurnal e-clinic (eCl)*. 2016;4(1):312 – 7.
10. Liu J, Li H, Yang F, Ren Y, Xia T, Zhao Z, Cao X, Wang Z, Yin M, Lu S. Epidemiology and Clinical Profile of Cutaneous Warts in Chinese College Students: A Cross-Sectional and Follow-Up Study. *Sci Rep*. 2018;8:15450. doi: [10.1038/s41598-018-33511-x](https://doi.org/10.1038/s41598-018-33511-x)
11. Jonathan J, Kapantow GM, Niode NJ. Profil Veruka Vulgaris di Poliklinik Kulit dan Kelamin RSUP Prof. Dr. R. D. Kandou Manado Periode Januari – Desember 2012. *Jurnal e-clinic (eCl)*. 2015;3(2):712 – 6.
12. Dalimunthe DA, Siregar R, Tanjung C. Lama Waktu Penyembuhan Berkorelasi dengan Karakteristik Pasien pada Pengobatan Veruka Vulgaris dengan Pengolesan Larutan Fenol 80%. *Periodical of Dermatology and Venereology*. 2016;28(1):23 – 6.



This work is licensed under a Creative Commons Attribution