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A retrospective study of condyloma acuminata profile in outpatient clinic of dermatovenereology Sanglah General Hospital Denpasar, Bali-Indonesia period 2015-2017

Ni Made Dwi Puspawati,^{1*} Sissy,² Dewi Gotama¹

ABSTRACT

Introduction: Condylomata acuminata (CA) is human papillomavirus (HPV) infection, and one of the most common sexually transmitted disease, characterized with papul or papillomatous nodule in genital, perineum and anal, this disease can be asymptomatic as well. Some study proved sexually transmitted infection increases the incidence of *Human immunodeficiency virus* (HIV)/ acquired immunodeficiency syndrome (AIDS), and vice versa. Management of CA is Trichloroacetic acid (TCA), Tincture Podophyllin, and Electrocautery. This study aims to determine profile of condyloma acuminata in Dermatovenereology Outpatient Polyclinic Sanglah General Hospital Denpasar Bali period 2015-2017. A retrospective study during three years (2015-2017).

Method: Data was obtained from medical record in Dermatovenereology Outpatient Polyclinic Sanglah General Hospital Denpasar Bali period 2015- 2017.

Result: Total patient condyloma acuminata is 260 patients (5.48%), male is dominant 70 patients (67.31%), range age 12-35 years old (123%), there was 59 patient who infected with HIV (22.31%), with five pregnancy (1.92%). Most therapy is given trichloroacetic acid (TCA) (79.62%).

Conclusion: Men suffered from condyloma acuminata more commonly than women, the most common treatment for this condition is trichloroacetic acid (TCA)

Keywords: Condyloma acuminata, Genital Warts, HIV, Sanglah

Cite This Article: Puspawati, N.M.D., Sissy, Gotama, D. 2018. A retrospective study of condyloma acuminata profile in outpatient clinic of dermatovenereology Sanglah General Hospital Denpasar, Bali-Indonesia period 2015-2017. *Bali Dermatology and Venereology Journal* 1(1): 1-3. DOI:10.15562/bdv.v1i1.1

INTRODUCTION

Human papillomavirus (HPV) is a common cause of cutaneous and mucosal infection. Condylomata acuminata (CA, singular: condyloma acuminatum), also known as anogenital warts, are manifestations of HPV infection that occur in a subset of individuals with anogenital infection. External CA typically manifest as soft papules or plaques on the external genitalia, perianal skin, perineum, or groin HPV types 6 and 11 are detected in most cases of CA. Human papillomavirus (HPV) is a group of nonenveloped, double-stranded DNA viruses belonging to the family Papillomaviridae. Investigators have identified over 200 types of HPV, more than 40 of which can be transmitted through sexual contact and infect the anogenital region. Human papillomavirus (HPV) is the most common sexually transmitted infection in the United States, and another country including Indonesia. Although CA rank among the most frequent sexually transmitted diseases (STD) the epidemiology of CA is not well characterized. A recent review by Scarbrough and colleagues reported the epidemiology of AGWs only in the USA, UK and France.^{1,2,3} This study aims to evaluate profile of condyloma acuminata disease

in patient at Dermatovenereology polyclinic Sanglah Hospital Denpasar Bali period 2015-2017

METHODS

The study was conducted retrospectively by retrieving data from patient clinical records of Dermatovenereology in Sanglah General Hospital Denpasar Bali, Indonesia, period 2015-2017. Data are analyzed using descriptive method according to characteristics of the patient such as gender, age group, HIV status, treatment, and pregnancy status.

RESULTS

Retrospective research on CA patients who came to seek treatment at the Dermatovenereology Polyclinic of Sanglah General Hospital Denpasar, Bali-Indonesia during the period of January 2015 to December 2017, is presented in [table 1](#).

Based on [table 1](#), The number of new CA patient visits during the period of January 2015 to December 2017 was 260 patients of total 4743 visits of patients. In 2015 CA patients had a total of 85 patients (4.73%), and there were 71 patients (4.58%) in 2016 and increased in 2017 for 104 patients

¹Dermatology and Venereology Departement, Faculty of Medicine, Udayana University, Sanglah General Hospital Denpasar, Bali-indonesia

²Pre-graduate in Dermatology and Venereology, Faculty of Medicine, Udayana University, Sanglah General Hospital Denpasar, Bali-indonesia

*Correspondence to:
Ni Made Dwi Puspawati,
Dermatology and Venereology
Departement, Faculty of Medicine,
Udayana University, Sanglah General
Hospital Denpasar, Bali-indonesia
dwipuspawato@unud.ac.id

Received: 14 April 2018

Accepted: 2 May 2018

Published: 11 May 2018

Table 1 Total distribution of Condyloma Acuminata patients in Sanglah Hospital Bali

Patient	2015	2016	2017	Total
CA	85 (4.7%)	71(4.58%)	104(7.43)	260(5.48)
Total Visit	1792	1551	1400	4743

Table 2 Distribution by sex, age group, HIV, pregnancy, and treatment in Sanglah Hospital Bali

	2015(%)	2016(%)	2017(%)	
Male	47(55.30)	39(54.93)	70(67.31)	156(60)
Female	38(44.70)	32(45.7)	34(32.69)	104(40)
Age Group				
Child	1(1.17)	0	0	1(0.38)
Adolescent	46(54.12)	39(54.93)	38(36.53)	123(47.31)
Adult	33(38.83)	28(39.24)	58(55.77)	119(45.77)
Geriatric	5(5.88)	4(5.64)	8(7.70)	17(6.54)
HIV	21(24.71)	19(26.76)	18(17.31)	58(22.31)
NON HIV	64(75.29)	52(73.24)	86(82.69)	202(77.69)
Total	85	71	8	260(100)
Pregnancy	2(2.36)	1(1.41)	2(1.91)	5(1.92)
Non Pregnancy	83(97.64)	70(98.59)	102(98.06)	255(98.08)
Total	85	71	104	260(100)
Podophyllin	12(14.12)	10(14.08)	13(12.5)	35(13.46)
Electrocauter	7(8.24)	4(5.64)	4(3.85)	15(5.77)
TCA	65(76.47)	58(78.87)	86(82.69)	207(79.62)
Surgery	1(1.17)	1(1.41)	1(0.96)	3(1.15)
Total	85	71	104	260(100)

(7.43). The characteristics profile of condyloma acuminata patient can be seen in table 2.

Based on table 2, shows distribution by sex mostly found in male rather than female in total of 156 patients (60%) compare to female 104 patients (40%). The age group of adolescent group are 123 patients, we only found 58 patients (22.31) positive with HIV but our limitations is we don't know the history whether the patients got CA first or HIV to conclude a conclusion. This study found five patients (1.92) from the total of 104 female patients is pregnant. Condyloma acuminata in Sanglah Hospital Denpasar, Bali-Indonesia mostly treated with TCA

DISCUSSION

Human papillomavirus (HPV) is a group of non-enveloped, double-stranded DNA viruses belonging to the family Papillomaviridae. There have been identified over 200 types of HPV, more than 40 of which can be transmitted through sexual contact and infect the anogenital region.^{3,4}

Human papillomavirus (HPV) is transmitted through contact with infected skin or mucosa. The virus invades the cells of the epidermal basal layer through microabrasions. Anogenital HPV infection is almost always acquired through sexual contact. Warts are not required for transmission but are highly infectious because of their high viral load. Vertical transmission of HPV from pregnant women with anogenital warts to the fetus is possible. Distribution patterns and characteristics differ from country to country.

Patel et al. (2013) in a systematic review have suggested that the worldwide train incidents are between 160-289 per 100,000 people per year. The prevalence of CA in Indonesia is 5-19%.^{2,3,7} In this study obtained during the period 2015-2017 an increase in CA patients with a slight decrease in 2016, and increasing in 2017. Increased CA patients are affected by several risk factors that facilitate transmission of CA. The researchers point out some of these risk factors such as young age at first sexual intercourse, low education, multi sexual partners, low immune status, immunosuppressive disease and increased incidence of HIV / AIDS each year.^{1,2,3,4}

Among thirteen studies based on retrospective administrative databases or medical chart reviews, prospectively collected physician reports or genital examinations providing incidence or prevalence estimates for both sexes, nine reported higher rates for males than for females.

However, in surveys that included both genders, more females than males admitted ever having had CA, but in the prevalence studies that have been done by Kalichman et al. (2011) stated that the frequency of men and women are the same. In some study also conclude the correlation between drinking alcohol and smoking can increase the possibility of CA which makes males more prone to CA. In this study also was found that men were more likely to experience CA than women, due to the possibility of an eastern culture, where women were more embarrassed to examine genitalia-related illnesses, in addition to the different forms of female anatomy with men, as well as the presence of spontaneous regression in 30% of CA cases within 4 months, this may be related to the immune response to eliminate or suppress viral replication. Hence the female visitation rate with the acuminata condyloma is not as large as that of men.^{6,7,8}

In this study, most of the CA patients were in the adolescent group, the results of this study were by the literature, that generally the incidence of CA occurs in adolescents and it is estimated that 30 to 50% of sexually active individuals are infected with HPV. The incidence of condyloma in adolescents is also associated with increased curiosity and

sexual interest of teenagers to encourage teenagers always to try to find information in various forms. As for several factors that cause increased cases of adolescents with sexually transmitted diseases include. Trichloroacetic acid (TCA) is a chemically destructive acid that burns, cauterizes and erodes the skin and mucosa, resulting in the physical destruction of warty tissue through protein coagulation. The destructive nature of the product frequently extends beyond the superficial wart to encompass the underlying viral infection. The acid is typically prepared in concentrations of 80–90% and, given the caustic nature of the solution, requires administration by a physician. TCA is an inexpensive, cost-effective treatment most effective on small, moist patches of warts. Clearance rates ranging from 70 to 80% following several weeks of therapy have been observed; however, recurrence rates are still relatively high at approximately 36%.^{8,9,10}

CONCLUSION

A retrospective study of the Condyloma Acuminata profile in the Dermatovenereology Clinic of Sanglah Denpasar Hospital from January 2015 to December 2017 has been conducted. Overall, the trend of new CA cases still increasing from 4.7 % in 2015 to 7.43% in 2017. The highest pattern of CA distribution in male sex is compared to female, and age group is 12-25 years old (123%). CA cases with HIV / AIDS were found as many as 58 cases (23.31%) and CA cases with pregnancy were found as many as 5 (1.92%). Management of CA is mostly with TCA (70.99%).

CONFLICT OF INTEREST

Author has no conflict of interest regarding all element on the study.

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