

Prevalence of Condyloma Accuminata with Human Immunodeficiency Virus at Dermatology and Venereology Departement of Mangusada Badung General Hospital During January-December 2016

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Abstract: *Condyloma Acuminatum* is an infection caused by Human Pappilomavirus (HPV), which have papilomatosis shaped with verucosal surface. This disease is classified as sexually transmitted infection because more than 90% is transmitted through sexual contact. HIV infection that increases the incidence and distribution of anogenital wart was caused by HPV. This is a descriptive retrospective studies, the data was taken from patients registration who attended to Dermatology Polyclinic and VCT Poly "SekarJepun" in General Hospital Mangusada Badung during January 2016 – December 2016. The study shows that there were 32 new patients of condyloma acuminatum (1.75%). There were 22 patients who volunteer to do HIV screening and 10 patients who were not. From the 22 patients who do HIV screening, 5 patients (22.73%) were positive for HIV infection. The predominant age group of the infected patients is 25-44 years (60%), while the predominant gender was female (60%). As a conclusion there were 22.73% condyloma acuminatum patients were also infected by HIV, with predominant on female and age group of 25-44 years old.

1. Introduction

Condyloma acuminatum, also known as genital warts or anogenital warts or chicken's comb disease, is an infection caused by human papillomavirus (HPV). The lesion has papillomatosis with mucosal surface shape.¹ This disease is classified as a sexually transmitted infection, because almost more than 90% are transmitted through sexual contact. Other modes of infection are through perinatal contact from the mother to her baby.^{1,2}

From Center for Disease Control and Prevention data in the United States, it was recorded that there were more than 19.7 million new cases of sexually transmitted infection (STI) on each year, where 14.1 million cases were HPV infection.³ Condyloma acuminatum was the big three for STI research in 12 teaching hospitals in Indonesia during 2007 – 2011. Condyloma acuminatum was ranked first in 6 major cities, which is in Medan, Jakarta, Bandung, Semarang, Yogyakarta and Denpasar. The most dominant age was found in the group of 25-45 years. At RSUP H. Adam Malik Medan in 2009, it was found that the most frequent STIs were Condyloma acuminatum which was 29.9%. While at Dr. Soetomo Surabaya, the morbidity rate of it was 1.9% in 2008, mostly in woman (3:2) and at the age of 25-44 years.³ Condyloma acuminatum was ranked first in term of data visit at Dermatology Polyclinic, RSUPN Dr. Cipto Mangunkusumo (RSCM) Jakarta.²

Condyloma acuminatum is caused by HPV, which is a DNA virus that is classified as papovavirus family.⁴ So far more than 150 HPV genotypes have been identified.² The most common causes are HPV type 6 and 11, with the shortest incubation period of three weeks to eighteen months.² It can also be found in HIV patients who are usually associated with strains that can change to malignancy such as serotype 16, 18, 31 and 33. HIV infection is predisposition that can increase the incidence and the spread of anogenital warts

caused by HPV. Many studies consistently show an increase of HPV infection in HIV patients.

This disease is mainly found in moist folds, i.e. in the external of genitalia area. The predilection area in men is in the perineum and around the anus, coronary sulcus, penis glans, inside the urethral meatus, corpus and base of the penis. While the predilection area in women is in the surrounding area of vulva, introitus vagina, and porsio uteri. A lot of anogenital coitus cause the lesion of condyloma acuminatum to be found around anus. In addition, the growth of condyloma acuminatum will increase on HIV patients or patients who have experienced organ transplants or pregnant.⁴ The spreading and growth of it depend on the immune response of host. The mechanism of the immune response which can limit the infection of HPV is not understood yet. However, it is known that cell-mediated immune response is needed for healing.⁵ Clinical symptoms can be asymptomatic, but there are also those that cause heat, pain, itching or bleed easily. The size of warts varies between 1 mm to several centimeters and merge to form large wart lesions, known as giant condyloma.²

The general strategy of treatment is by removing the warts as much as possible until all lesions disappear and also improving the body's immune system, so the virus replication can be controlled. There are three categories of condyloma acuminatum management, which is medication that affect the immune system (imiquimod and interferon alfa), cytotoxic agents as antiproliferation (podophylline, podophyllox, and -5-fluorouracil) and sito-destructive including excision surgery, electrical surgery, frozen surgery, CO₂ laser, trichloroacetic acid and bichloroacetic acid.²

Problem Identification

The absence of data on condyloma acuminatum patients with HIV in dermatologic polyclinic of RSUD Mangusada Badung.

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Research Purpose

The purpose of this study was to determine the incidence of condyloma acuminatum patients who infected by HIV in dermatologic polyclinic of RSUD Mangusada Badung during January 2016 – December 2016.

Specific Research Objectives

Determining the prevalence of condyloma acuminatum with HIV and identifying the distribution of condyloma acuminatum patients with HIV according to the age and gender.

Benefit of Research

As reference for RSUD Mangusada Badung in planning or taking preventive and treatment measures for sexually transmitted infection, especially condyloma acuminatum with HIV. And also as reference for other researchers.

Research Methods

This research is a descriptive retrospective study. Data was taken from the register book at dermatologic polyclinic and VCT Poly “Sekar Jepun” in RSUD Mangusada Badung. The population included all data of patients who being treated at dermatologic polyclinic in RSUD Mangusada Badung from January 2016 to December 2016. Also all new patients diagnosed with condyloma acuminatum, who volunteered to take HIV screening at VCT Poly “Sekar Jepun” in RSUD Mangusada Badung. Research variables include age and gender.

Research Results

From the research that has been performed at dermatologic polyclinic in RSUD Mangusada Badung, there were 32 new patients that have condyloma acuminatum, the percentage is 1.75% from 1822 visitation during January 2016 to December 2016. 22 patients were willing to volunteer for HIV screening, while 10 patients were not.

Table 1: Distribution of new patients with condyloma acuminatum who perform HIV test

	New patients with condyloma acuminatum who perform HIV test	Percentage [%]
HIV positive	5	22.73
HIV negative	17	77.27
Total	22	100

Table 2: Distribution of new patients with condyloma acuminatum and HIV according to age

Age	Total	Percentage [%]
< 1	0	0
1-4	0	0
5-14	0	0
15-24	0	0
25-44	3	60
45-64	2	40
≥ 65	0	0
Total	5	100

Table 3: Distribution of new patients with condyloma acuminatum and HIV according to gender

Gender	Total	Percentage [%]
Male	2	40
Female	3	60
Total	5	100

Distribution of new patients with condyloma acuminatum and HIV was 5 patients (22.73%) as shown in Table 1. The highest distribution of new patients with condyloma acuminatum and HIV according to age was found in the group of 25-44 years, which had 3 patients (60%) as shown in Table 2. The highest distribution of new patients with condyloma acuminatum and HIV according to gender was found in female, which had 3 patients (60%) as shown in Table 3.

2. Discussion

32 patients, which was 1.75% from 1822 patients, with condyloma acuminatum were found at dermatologic polyclinic in RSUD Mangusada Badung during January 2016 to December 2016. All patients with condyloma acuminatum were advised to take a screening test for HIV at VCT Poly “Sekar Jepun” in RSUD Mangusada Badung. A total of 22 patients were willing to volunteer for HIV screening.

From Table 1, it is shown that there were 5 patients (22.73%) who infected by condyloma acuminatum and HIV, although the percentage may be increase if 10 patients didn't refuse to do HIV screening. The study of Anderson et al in the United States in 2004, it is known that there were 34 patients (55.73%) infected by HIV from total of 61 patients with condyloma acuminatum.⁶ While the study of Caio et al in the Brazil in 2014, it is known that there were 96 patients (55.73%) infected by condyloma acuminatum from total of 159male patients with HIV.⁷

As shown in Table 2, the highest distribution of patient with condyloma acuminatum and HIV was in group 25-44 years which was 3 patients (60%). Research at RSUP Prof. DR. R.D. Kandou Manado in 2012 shown that age group with the most condyloma acuminatum was group 25-44 years. While research at RSUD Dr. Soetomo Surabaya in 2006-2008 shown that that age group with the most condyloma acuminatum was group 25-44 years.³ The result is consistent with the theory which states that condyloma acuminatum infection is more common during active sexual time and there is also probability of a tendency to change sexual habit and to change sexual partners in this age group, where this can play a role in increasing the prevalence of HPV infection, especially condyloma acuminatum.^{3,8}

As shown in Table 3, the predominant gender infected by condyloma acuminatum and HIV was female (60%). Research at RSUP Prof. DR. R.D. Kandou Manado in 2012 shown that gender with the most condyloma acuminatum was female.³ One study in the United States said that HPV patients were found to be most common in female, as many as 39% with black skin color, compared to 24% of Mexican Americans and 24% of female with white skin color. In similar study, the number of women who infected by HPV with poor economic status were twice as much compared to women with higher economic status. Married women had lower rates of HPV infection than unmarried women. A higher level was found in widow, divorced women, or women who live apart from their partners.⁸ Men are less affected by HPV, may be due to circumcision and the

genitalia of women which have thinner mucosa, moist and a lot of vascularization so that lesions are easier to occur.^{3,8}

3. Conclusion

During January 2016 to December 2016, 22.73% patients with condyloma acuminatum and HIV were found, mostly in the age group of 25-44 years, and the predominant gender was female.

4. Recommendation

- 1) This study is still far from perfect, the number of samples is still small and the willingness of patient to voluntarily do HIV screening is still low.
- 2) Patients whose HIV screening result was negative should be re-examined to ensure they are free in the window period.
- 3) Further research is needed to assess STI patients for voluntarily doing HIV screening, to prevent the spread of HIV and other STI diseases.

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