

# Profile of Condyloma Acuminatum Patients with Syphilis and HIV/AIDS in Haji Adam Malik General Hospital January 2013 - December 2018

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**Abstract- Introduction :** Condyloma acuminatum (CA) is a sexually transmitted disease that is currently a worldwide epidemic. Data collected in the United States found about 20 million new cases of sexually transmitted infections (STIs), and about 14 million cases were Human Papilloma Virus (HPV) infections. Worldwide data collected by WHO, recorded about 1 million cases occur every day around the world. This phenomenon shows that CA is an STI that is quite common in the population.

**Objective :** To understand the profile of CA patients with syphilis and HIV/AIDS in the Department of Dermatology and Venereology Divison of Sexually Transmitted Diseases Haji Adam Malik General Hospital Medan during the period of 1<sup>st</sup> January 2013 - 31<sup>st</sup> December 2018

**Subjects and methods :** Subjects were the patient's medical record data in Department of Dermatology and Venereology Haji Adam Malik General Hospital Medan from 1<sup>st</sup> January 2013 - 31<sup>st</sup> December 2018 using descriptive retrospective method.

**Results :** Patients CA with syphilis and HIV/AIDS was 10 people, with the majority of male sex was 6 (60%), in the age group 17-25 years was 5 (50%), in the homosexual group was 4 (40 %), with the number of sexual partners more than 1 was 6 (60%), at the perianal location was 6 (60%) , acuminatum form was 5 (50%), with a CD4<sup>+</sup> 500-200 cell/ mm<sup>3</sup> was 5 (50%), and TCA application was 10 (100%).

**Conclusion :** The number of CA patients with syphilis and HIV/AIDS in Haji Adam Malik General Hospital from 1<sup>st</sup> January 2013 to 31<sup>st</sup> December 2018 was 10 people, with the majority of male sex, in the age group 17-25 years, homosexual group, number of sexual partners more than 1, perianal location, acuminatum form, homosexual group, CD4<sup>+</sup> 500-200 count, and TCA application.

**Index Terms-** condyloma acuminatum, syphilis, HIV/AIDS, profile

## I. INTRODUCTION

Condyloma acuminatum (CA) is a sexually transmitted disease that is currently a worldwide epidemic. The prevalence of CA is estimated at 1% in the sexually active population and has increased to 25% in 2008 - 2010 in the United States. Clinical features may be papillomatous papules or nodules such as

cauliflower found on mucous membranes or skin of external genitalia. In addition to CA, one of the other sexually transmitted diseases that are often found is syphilis. In some cases syphilis often seroconversion in patients with HIV/AIDS. Syphilis is a contagious infectious disease that is chronic and in its course can attack other systems in the body to several organs at different clinical levels, and *Treponema sp.* is the main causative agent. Syphilis has become an epidemic infectious disease throughout the world and is increasing in patients with HIV/AIDS. All HIV/AIDS patients must be tested for syphilis.<sup>1</sup>

Syphilis and CA also often occur together or coinfection in HIV/AIDS. Several studies, both research and case studies have found many cases of syphilis with CA. Both of these pathogens are very closely related to the integrity of the epithelium as the main barrier to infection infection.<sup>2</sup>

The HIV/AIDS will interfere with the integrity of the mucosal epithelial barrier which allows the translocation of viruses and bacteria. The presence of HIV and HPV viruses can be a risk factor for syphilis infection, conversely syphilis, which is generally in the form of chancre/ulcer durum at the primary stage, is also a risk factor for the entry of HIV and HPV viruses. HIV/AIDS is currently a sexually transmitted disease that has become an epidemic throughout world. Sexually transmitted infections that occur can be single to multiple due to the low resistance system against pathogens that enter the body.<sup>3</sup>

Genital warts are a sexually transmitted disease that is also often found in patients with HIV/AIDS. Data collected in the United States found about 20 million new cases of STIs, and about 14 million cases were HPV infections. Worldwide data collected by WHO, recorded about 1 million cases occur every day around the world. This phenomenon shows that CA is a sexually transmitted infection which is quite commonly found in the population of sexually transmitted infections.<sup>4,5</sup>

Immunologically this infection will directly deal with the cellular immune system. In patients with HIV/AIDS that are infected with CA will be difficult to experience healing and tend to develop with larger lesions. The prevalence of HPV infection will increase in patients with immunosuppression such as infection with the HIV, immunosuppressive therapy and pregnancy with longer manifestations and difficult virus clearance so that it becomes a persistent infection. The condition of the immune system decline will cause CA infection to become giant

condyloma. Cellular immunity is very strong role to be a defense and clearance against CA infection.<sup>6,7,8,9</sup>

## II. METHODS

This study was descriptive retrospective. This study was conducted by looking at and re-recording medical record data from patients at the Department of Dermatology and Venereology, Division of Sexually Transmitted Diseases Haji Adam Malik General Hospital Medan from 1<sup>st</sup> January 2013 to 31<sup>st</sup> December 2018.

## III. RESULTS

The number of CA patients with syphilis and HIV/AIDS who came for treatment at the Dermatology and Venereology Policlinic Haji Adam Malik General Hospital Medan from 2013 to 2014 based on medical record data in the Haji Adam Malik General Hospital in Medan which qualified for the study was 10 people.

**TABLE 1. FREQUENCY DISTRIBUTION BASED ON GENDER**

Gender	n	Percentage (%)
Male	6	60
Female	4	40
<b>Total</b>	<b>10</b>	<b>100</b>

Based on the table above, the most gender was male as many as 6 patients (60%).

In a retrospective description study by Aswar at the Haji Adam Malik General Hospital recorded in the medical record section for the period of January 1<sup>st</sup>, 2008 - December 31<sup>st</sup>, 2011 there were 76 CA patients, the majority of which were women (53.9%) . Research conducted by Nelwan et al at Prof. dr. R. D. Kandou General Hospital Manado in the January - December 2012 period reported that most of the new patients were 14 women (51.85%). While the retrospective study conducted by Lang et al in Canada from 2006-2016 reported the most syphilis cases in HIV/AIDS were found in 183 men (94.3%) . The difference in the results of this study with other studies can be influenced by the small number of samples and the tendency to increase the number of cases of MSM each year.<sup>5,6,10</sup>

**TABLE 2. FREQUENCY DISTRIBUTION BASED ON AGE**

Age Group	n	Percentage (%)
17-25	5	50
26-35	4	40
36-45	1	10
<b>Total</b>	<b>10</b>	<b>100</b>

Based on the table above, the most age distribution was 17-25 years old as many as 5 patients (50%).

CA infection usually occurs during the active sexual period of 1% and there is a possibility of a tendency towards changes in sexual lifestyle habits and changing attitudes or adding partners in this age group which has a role in increasing the prevalence of HPV infection, especially CA. According to the AIDS

Commission in 2007 an important age distribution to note, because the younger a person is, the more susceptible to contracting sexually transmitted diseases. In the age group of men 20-34 years and women 16-24 years old are classified as high risk for sexually transmitted diseases.<sup>11,12</sup>

**TABEL 3. FREQUENCY DISTRIBUTION BASED ON SEXUAL ORIENTATION**

Sexual Orientation	n	Percentage (%)
Homosexual	4	40
Heterosexual	3	30
Bisexual	3	30
<b>Total</b>	<b>10</b>	<b>100</b>

Based on the table above, the most sexual orientation was homosexual as many as 4 patients (40%).

This is consistent with the literature that CA with anorectal lesions usually affects homosexual men infected with HIV/AIDS. The prevalence and recurrence rates of perianal condyloma are much higher in individuals with impaired immunity compared to healthy individuals. The incidence of HPV infection in homosexual men has doubled compared to heterosexuals.<sup>11,12</sup>

**TABEL 4 FREQUENCY DISTRIBUTION BASED ON SEXUAL PARTNER**

Sexual Partner	n	Percentage (%)
1 person	4	40
>1 person	6	60
<b>Total</b>	<b>10</b>	<b>100</b>

Based on the table above, the most patient with sexual partners was >1 person as many as 6 patients (60%)

The results of this study are in line with studies conducted by Assi et al in Lebanon regarding the prevalence of HIV/AIDS and other STDs and their relationship with sexual practices in 2.238 MSM reporting that 78% of patients had more than one sexual partner in the last 3 months. The large number of sexual partners accompanied by inconsistent use of condoms will increase a person's risk factors for getting sexually transmitted infections.<sup>13</sup>

**TABEL 5. FREQUENCY DISTRIBUTION BASED ON LOCATION**

Location	n	Percentage (%)
Genital	4	40
Perianal	6	60
<b>Total</b>	<b>10</b>	<b>100</b>

Based on the table above, the most location was perianal/anal as many as 6 people (60%).

According to research in Hong Kong, the highest incidence of CA patients in MSM or homosexual populations so that the most lesions are usually perianal and genital. While Nelwan et al reported the distribution of CA patients according to the location of lesions most often found in women is in the vulva (35.71 %) and in men is most often on the penis as many as 4 people (30.77%).<sup>4,5</sup>

**TABEL 6. FREQUENCY DISTRIBUTION BASED ON LESION SHAPE** **IV. CONCLUSION**

Lesion Shape	n	Percentage (%)
Acuminatum	5	50
Papule	3	30
Giant	2	20
<b>Total</b>	<b>10</b>	<b>100</b>

Based on the table above, the most lesion shape was acuminatum as many as 5 patients (50%).

Research conducted by Oktaviyanti et al in the Division of Sexually Transmitted Infections in the Dermatovenereology Outpatient Unit of dr. Soetomo Surabaya, in the 2012 - 2014 period, reported that the most common form of acuminata was 283 (88.9%). The prevalence of HPV infection increased in patients with immunosuppression, one of which was HIV/AIDS infection with longer manifestations and virus clearance is difficult so that it becomes persistent infection. These conditions will also cause the development of CA lesions to be longer, easily recur and larger (giant condyloma).<sup>14,15</sup>

**TABEL 7. FREQUENCY DISTRIBUTION BASED ON CD4+ COUNTS**

CD4+ (sel/μL)	n	%
750-500	2	20
500-200	5	50
200-50	3	30
<b>Total</b>	<b>10</b>	<b>100</b>

Based on the table above, the highest CD4+ counts was 500-200, as many as 5 people (50%).

The increased prevalence of HPV infection is not related to the low CD4+ cell count. CA caused by low-risk HPV also increases after infection with HIV/AIDS. However, there is a strong relationship between low CD4+ counts and an increased incidence of STIs. Syphilis infection in HIV/AIDS patients is associated with an increase in viral load and a decrease in CD4+ counts.<sup>14,16</sup>

**TABEL 8. FREQUENCY DISTRIBUTION BASED ON LESION TREATMENT**

Treatment	n	%
TCA ( <i>Tricholoracetic Acid</i> ) application	10	100
<b>Total</b>	<b>10</b>	<b>100</b>

Based on the table above, the most lesion treatment was TCA application as many as 10 patients (100%).

The results of this study are in line with research conducted by Habibie et al who reported TCA as the treatment most often given to train patients accompanied by HIV/AIDS in dr. Soetomo Surabaya Period 2011 - 2014, as many as 62 people (98.4%). While Nelwan et al reported that therapy was most often given on new trains accompanied by HIV/AIDS at Prof. dr. R. D. Kandou General Hospital Manado, period of January 2012 - December 2012 was podophyllin as many as 14 patients (51.85%) and followed by TCA as many as 8 people (29.63%).<sup>5,17</sup>

condyloma acuminatum with syphilis and HIV/AIDS from 1<sup>st</sup> January 2013 to 31<sup>st</sup> December 2018 in Haji Adam Malik General Hospital, found most in male sex was 60%, in the reproductive age group 17-25 years was 50%, in the homosexual group was 40%, with the number of sexual partners more than 1 was 60%, at the perianal location was 60%, acuminatum form was 50%, with CD4+ counts 500-200 cells/μL was 50%, and TCA application was 100%.

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