



A THREE-YEAR RETROSPECTIVE STUDY ON CONDYLOMA ACUMINATA CASES IN BALI MANDARA HOSPITAL

Ni Luh Ayu Kartika Dewi and I Gede Arya Pranata

Department of Dermatology and Venereology, Bali Mandara Hospital, Denpasar, Bali, Indonesia

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Abstract: Sexually transmitted infections (STIs) continue to pose significant health challenges across both developed and developing countries, contributing substantially to morbidity and mortality, particularly through their effects on reproductive and developmental health. Among these, condyloma acuminata, caused by the human papillomavirus (HPV), is a noteworthy STI. HPV is the most common sexually transmitted virus globally, with virtually all sexually active individuals at risk of infection during their lifetime. While HPV infections are often asymptomatic and self-limiting, they may progress to symptomatic forms, such as anogenital warts (condyloma acuminata), as well as potentially lead to pre-cancerous lesions or cancer of the cervix, vulva, or penis. The prevalence of HPV infection has been steadily increasing over the past three decades, with a cumulative incidence of about 40% in young adults and a prevalence of 75-80% globally. Despite its widespread occurrence, many individuals with HPV infections remain undiagnosed due to the asymptomatic nature of most cases. However, the public health impact of symptomatic HPV infections and the link between HPV and the development of cancers underscores the importance of monitoring, prevention, and treatment strategies. This review highlights the global burden of HPV infections, the clinical manifestations of condyloma acuminata, and the broader implications for reproductive health, emphasizing the need for increased awareness and preventative measures, including vaccination and regular screenings.

1. INTRODUCTION

One of the health problems in both developed and developing countries worldwide is sexually transmitted infections (STIs). They are a major cause of morbidity and mortality through their impact on reproductive and developmental health, as well as facilitating the transmission of human immunodeficiency virus (HIV) infection.

One of these sexually transmitted infections is condyloma acuminata.^[9] Human Papilloma Virus (HPV) is the most common sexually transmitted virus found worldwide. Every individual who is sexually active has the possibility of getting HPV infection at least once in their life. HPV infections are generally self-limiting and asymptomatic, so not everyone

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seeks treatment. Symptomatic infections are not common and manifest as anogenital condyloma, and pre-cancer or cancer of the cervix, vulvar or penis. The global prevalence of HPV infection has been reported to be increasing steadily over the past 35 years. The cumulative incidence of HPV infection in the general young adult population is 40% with prevalence reaching 75-80%.^[11]

Condyloma acuminata is caused by HPV through sexual intercourse where there is contact with epithelial lesions, and can also occur when there is contact with genital fluids containing HPV. Condyloma acuminata is characterized by abnormalities in the skin and mucosa in the form of hyperkeratosis, keratohyalin coarse granules, and keratocytes. The location is generally found in the anogenital region in men and women, but can also be found in the oral region. The incubation period of KA ranges from 2 weeks to 2 months. 90% of KA is caused by HPV types 6 and 11, but these types rarely cause cancer.^{[8],[9]} There are several factors that influence the development of condyloma acuminata infection, including individual susceptibility, nutritional and immune status, hormones, smoking, pregnancy, and co-infection with other sexually transmitted infectious agents such as herpes

simplex virus type 2, chlamydia trachomatis, and HIV.^[8]

2. METHODS

This study used a descriptive research design with secondary data collection in the form of patient medical records. Sampling was done with total sampling technique. The samples in this study were patients with condyloma acuminata who sought treatment at the Dermatology and Venereology Polyclinic of Bali Mandara Hospital with a period range from January 2019 to December 2022 who met the inclusion and exclusion criteria. The sample size used was 38 people.

In this study, the variables used to describe the characteristics of the subjects were age, gender, and education level. The age variable used is in accordance with Indonesia's Health Department in 2009, namely adolescents (12-25 years), adults (26-45 years), and the elderly (45-65 years). The gender variable is seen based on the data on the subject's ID, namely male and female. Education variables used were in accordance with Indonesia's Law No. 20 of 2003 concerning the National Education System, namely: Low Education (No school, elementary school, junior high school), Secondary Education (high school / vocational high school), and Higher Education (undergraduate, academy, or other equivalent forms).

Table 1: Subject Characteristics by Age

Age	F	%
12-25	14	37%
26-45	21	55%
46-65	2	8%
Total	38	100%

The table above shows that 14 people (37%) were affected by condyloma acuminata in the age group 12-25 years, 21 people (55%) in the age group 26-45 years, and the remaining 2 people (8%) in the age

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group 46-65 years. Thus, it can be concluded that the highest prevalence of condyloma acuminata sufferers is in the 26–45-year group.

Table 2: Subject Characteristics by Gender

Gender	F	%
Male	23	61%
Female	15	39%
Total	38	100%

The table above shows that 23 people (61%) of men suffered from condyloma acuminata, and 15 people (39%) of women suffered from condyloma acuminata. It can be concluded that there are more people with condyloma acuminata in men than in women.

Table 3: Subject Characteristics Based on Education Level

Education Level	F	%
Low Education	1	3%
Secondary Education	22	58%
Higher Education	15	39%
Total	38	100%

Based on the table above, 1 person (3%) with condyloma acuminata has a low level of education, 22 people (58%) have a secondary education level. 15 people (39%) have a high level of education. It can be concluded that the highest prevalence of condyloma acuminata is at the secondary education level.

3. DISCUSSION

Table 1 shows that the age group 26-45 years is the highest prevalence of condyloma acuminata patients. This is in line with previous research conducted by Sanglah General Hospital in 2020 which states that based on the age group, the highest incidence of condyloma acuminata is age >20 years and the highest in the age group 20-40 years.^[5] Everyone who has sexual contact has

a risk of developing condyloma acuminata, but the age of 26-45 years is an age where people tend to be active in sexual intercourse. Whereas at a later age, the tendency to engage in sexual activity will decrease.^[2]

In table 2, it can be seen that patients with condyloma acuminata are more prevalent in men than women. In a previous study, it was found that women tend to have thinner mucosa so that it is easier to be infected with condyloma acuminata.^[3] But there are several other studies that state that condyloma acuminata is more likely to be found in men than women, namely in male patients with homosexual sexual orientation.^{[1],[6]} This is associated with the theory that men have a higher risk of developing



sexually transmitted infections and HIV than women.^{[7],[10]}

The level of education is one of the factors that affect a person's risk of developing sexually transmitted diseases, because the level of education is directly related to a person's knowledge, attitudes, and sexual behavior.^{[4],[12]}

4. CONCLUSION

Based on the research conducted, it was found that the age group 26-45 years was the age group that experienced the most condyloma acuminata. There are more patients with male gender than female gender. The education group with the most condyloma acuminata was found in the secondary education group.

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