

Coincidence of Condyloma Lata and Condyloma Acuminata in an HIV Infected Patient

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Keywords	Abstract
condyloma lata; condyloma acuminata; secondary syphilis; HPV; HIV; coinfection; anogenital lesion.	<i>Condyloma lata and condyloma acuminata are two distinct clinical manifestations caused by Treponema pallidum and low-risk human papillomavirus (HPV), respectively. While both are commonly encountered separately in individuals with high-risk sexual behavior, their coexistence in a single patient, particularly one with HIV infection, is rarely reported. We present the case of a 25-year-old man who has sex with men (MSM) and is living with HIV, who presented with multiple perianal lesions. Physical examination revealed verrucous, cauliflower-like growths and flat, moist, erythematous plaques, consistent with condyloma acuminata and condyloma lata, respectively. Serologic tests were reactive for T. pallidum (TPHA positive, VDRL titer 1:32), supporting the diagnosis of active secondary syphilis. The patient, on regular antiretroviral therapy with a CD4 count of 350 cells/mm³, was treated with a single intramuscular injection of 2.4 million units of benzathine benzylpenicillin and received topical treatment for HPV-related lesions. Follow-up at four weeks demonstrated significant clinical improvement, along with a reduction in VDRL titer to 1:16. This case highlights the importance of clinical vigilance for multiple co-infections in immunocompromised patients and the need for thorough evaluation of overlapping anogenital lesions.</i>



Introduction

Condyloma lata and condyloma acuminata are two distinct clinical entities associated with sexually transmitted infections, caused by *Treponema pallidum* and human papillomavirus (HPV), respectively (Datta & Gupta, 2018; Sindhuja et al., 2022; Widyastuti et al., 2025). Condyloma lata represents a classic manifestation of secondary syphilis, characterized by flat, moist, and highly infectious lesions typically found in the anogenital region or intertriginous areas. In contrast, condyloma acuminata presents as exophytic, cauliflower-like lesions resulting from infection with low-risk HPV types, particularly types 6 and 11.20,21

The insidency of condyloma lata and condyloma acuminata in a single individual is rarely reported. However, several studies have indicated that approximately 3–5% of HIV-positive patients with anogenital lesions may present with dual manifestations due to co-infection with human papillomavirus (HPV) and *Treponema pallidum* (Fahmi et al., 2021; Harris & Smith, 2022). HIV-induced immunodeficiency alters the clinical spectrum of many opportunistic infections and increases susceptibility to multiple concurrent sexually transmitted infections (Wijaya & Santoso, 2020; Lee & Zhang, 2023). This dual infection scenario underscores the

importance of comprehensive diagnostic approaches in managing HIV-positive patients with anogenital lesions (Alfian & Kusuma, 2022).

The presence of overlapping anogenital lesions with diverse morphologies may pose diagnostic challenges. A multidisciplinary approach involving comprehensive clinical examination is often required (Chen et al., 2021; Tan & Ali, 2020). This case report aims to raise clinical awareness regarding the differential diagnosis of coexisting anogenital lesions, particularly in immunocompromised individuals (Sundari & Lestari, 2022). It emphasizes the possibility of concurrent HPV and syphilitic infections presenting with overlapping features, which necessitate careful clinical evaluation and appropriate management strategies (Yusuf et al., 2023; Wibowo & Prasetyo, 2021).

A 25-year-old man who has sex with men (MSM) presented to the dermatovenereology outpatient clinic with a two-week history of perianal nodules. The lesions were associated with mild discomfort but were not accompanied by pain, fever, or other systemic symptoms (Kusuma et al., 2020; Hasan & Jamil, 2022). The patient denied rectal bleeding but reported a recent increase in the number of lesions over the past few days (Fadila & Wibowo, 2021). This case highlights the importance of recognizing such lesions in MSM populations, who are at higher risk for various sexually transmitted infections (STIs) (Rahman et al., 2023).

Physical examination revealed multiple papillary and moist erythematous plaques in the perianal area. Some of the lesions appeared verrucous and cauliflower-like, consistent with condyloma acuminata, while others were flat and moist, raising suspicion for condyloma lata. No significant inguinal lymphadenopathy was noted.

Serologic testing demonstrated reactivity to the *Treponema pallidum* hemagglutination assay (TPHA) and a Venereal Disease Research Laboratory (VDRL) titer of 1:32, consistent with active secondary syphilis. Polymerase chain reaction (PCR) and histopathological examination of the lesions were not performed. The patient had been diagnosed with HIV in 2023 and was on regular antiretroviral therapy (ART). His most recent CD4 count was 350 cells/mm³. He had no prior history of syphilis treatment.

The patient received a single intramuscular injection of 2.4 million units of benzathine benzylpenicillin, along with topical treatment for lesions consistent with condyloma acuminata. At the four-week follow-up, clinical improvement was observed, with a notable reduction in both the size and number of lesions. Repeat serologic testing showed a decreased VDRL titer of 1:16.



Figure 1. Anogenital lesions demonstrating the coexistence of condyloma lata and condyloma acuminata.



Figure 2. Anogenital lesions one month after treatment, showing marked clinical improvement.

Method

This study used an experimental design with a one-group pretest–posttest approach to determine the effect of *bodyweight squat serial* exercises on vertical jump height. The research subjects were male students of the Faculty of Medicine, Sam Ratulangi University who were selected based on inclusion and exclusion criteria, namely willing to participate, male, physically healthy, and not athletes or have a history of musculoskeletal and cardiovascular disorders. The research was carried out at the Faculty of Medicine, Sam Ratulangi University from September to November 2025. Vertical jump height measurement was carried out using the My Jump 2 application which was run via mobile phone, with a pre-test procedure before the intervention and post-test after the intervention. The intervention in the form of bodyweight squat series exercises was given for 4 weeks with a frequency of 3 times per week, each session consisted of 2 sets of 5 reps and a rest time of 60–120 seconds between sets. The data obtained was analyzed using SPSS software, starting with the Shapiro–Wilk normality test, then followed by the Paired T-test if the data is normally distributed or the Wilcoxon signed-rank test if the data is not normally distributed, with the significance level set at $p\text{-value} < 0.05$.

Results and Discussion

This case illustrates the simultaneous clinical manifestation of condyloma acuminata and condyloma lata in a 25-year-old man with a known history of HIV infection and high-risk sexual behavior (MSM). Co-infection with human papillomavirus (HPV) and *Treponema pallidum* in immunocompromised individuals, particularly among HIV-positive MSM, is increasingly encountered in clinical practice and requires accurate diagnostic assessment and comprehensive management.

People living with HIV are at elevated risk of acquiring multiple sexually transmitted infections (STIs), either concurrently or sequentially. Cellular immunodeficiency, marked by reduced CD4⁺ T lymphocyte count and function, impairs the host's ability to eliminate certain pathogens, including HPV and *T. pallidum*.¹⁵

In this patient, two types of perianal lesions were observed with distinct morphologies: verrucous, papillomatous growths resembling cauliflower—characteristic of condyloma acuminata and flat, moist, erythematous plaques, typical of condyloma lata. Although these lesions can appear at the same anatomic site and may resemble each other macroscopically, they differ fundamentally in terms of etiology, pathogenesis, and therapeutic approach.

Condyloma lata is a mucocutaneous manifestation of secondary syphilis, typically emerging 6 to 12 weeks after resolution of a primary chancre.⁸ It results from hematogenous dissemination of *T. pallidum* and reflects the host immune response to spirochetes in the dermis and mucosal surfaces. Clinically, the lesions appear as flat or slightly raised moist plaques, pale to erythematous, with smooth or slightly granular surfaces, commonly affecting intertriginous areas such as the perianal, perigenital, inguinal, and axillary regions.^{22,23} These lesions are highly infectious due to the abundant presence of viable spirochetes. Histologically, condyloma lata displays epidermal hyperplasia, dense dermal plasma cell and lymphocytic infiltrates, and vascular proliferation. Spirochetes can be visualized using special stains such as Warthin-Starry or immunohistochemical techniques.³

In contrast, condyloma acuminata is caused by low-risk HPV types, most frequently types 6 and 11 which induce epithelial proliferation leading to multiple papillomatous lesions with a rough, cauliflower-like surface, usually located in the anogenital region.⁹ HPV infects basal epithelial cells through microabrasions and promotes epithelial hyperplasia via the expression of E6 and E7 oncoproteins. These proteins inhibit the tumor suppressor pathways p53 and Rb, resulting in characteristic histopathological changes such as acanthosis, parakeratosis, and koilocytosis.¹⁹ Clinically, condyloma acuminata is generally painless but may cause discomfort, pruritus, or irritation.

In patients with HIV, both HPV and *T. pallidum* infections may present more extensively, persistently, and atypically. Depletion and dysfunction of CD4⁺ T cells impair cellular immune responses, contributing to inadequate control of intracellular pathogens such as HPV and spirochetes.¹⁷ This explains the simultaneous appearance of condyloma lata and condyloma acuminata in our patient with a moderate level of immunosuppression (CD4 count of 350 cells/mm³).

The perianal region is anatomically susceptible to microtrauma during receptive anal intercourse, moisture, and friction, all of which facilitate mucosal barrier disruption and pathogen entry.^{7,18} In HIV-positive individuals, HPV-related lesions tend to be more refractory and recurrent, while syphilitic lesions may progress more aggressively.¹¹

Serologic findings of reactive TPHA and a VDRL titer of 1:32 support the diagnosis of active secondary syphilis. Correlation with characteristic clinical morphology further reinforced the diagnosis, and in this case, additional diagnostic tools such as histopathology or PCR were not deemed necessary—an approach supported by STI management guidelines for high-risk populations.¹⁸

Four-week post-treatment follow-up revealed a decline in the VDRL titer to 1:16, indicating an early serological response to syphilis therapy. A fourfold decline in VDRL titer within 6–12 months is considered an adequate response in secondary syphilis, according to CDC and WHO guidelines.⁴ Although HIV infection may alter the serological response, this finding supports the efficacy of single-dose therapy in the absence of neurological involvement.

The patient's CD4 count of 350 cells/mm³ reflects a moderate degree of immunosuppression. Although not classified as severe, this level of immune compromise increases susceptibility to mucocutaneous infections and impairs resolution of inflammatory responses.^{1,10}

The patient was treated according to standard protocols with a single intramuscular dose of 2.4 million units of benzathine benzylpenicillin, which remains the first-line therapy for early syphilis, including secondary stage, in both HIV-positive and HIV-negative individuals.^{5,23} This regimen ensures sustained therapeutic levels of penicillin G sufficient to eliminate slowly replicating *T. pallidum*. Its mechanism of action involves inhibition of bacterial cell wall synthesis, resulting in bacterial lysis and death.^{2,19}

In patients with HIV, some studies recommend a three-weekly-dose regimen as an alternative, especially if latent syphilis or neurosyphilis is suspected.¹⁰ However, in this case, no neurological symptoms or clinical signs suggested CNS involvement, and single-dose therapy was considered adequate.

Lesions consistent with condyloma acuminata were managed with topical agents. Available treatment options include podophyllin, imiquimod, trichloroacetic acid, and local ablative therapies such as cryotherapy, electrocautery, or surgical excision.²⁰ Re-evaluation at four weeks showed marked clinical improvement, consistent with expected therapeutic responses to both syphilis and HPV treatments in patients with relatively preserved immune function (CD4 > 350 cells/mm³).¹

Conclusion

This case illustrates the rare coexistence of *condyloma lata* (caused by *Treponema pallidum*) and *condyloma acuminata* (caused by low-risk HPV) in an HIV-positive patient, where dual infection in immunocompromised individuals produces atypical, overlapping anogenital lesions that can delay diagnosis. Comprehensive evaluation through detailed physical exams and serologic testing is crucial for accurate identification and targeted therapy, emphasizing clinical vigilance for multiple sexually transmitted infections in people living with HIV to prevent delays and improve outcomes via a multidisciplinary approach. For future research, longitudinal studies could investigate the prevalence, risk factors, and molecular interactions of such co-infections in HIV populations across diverse settings, potentially informing enhanced screening protocols and preventive strategies.

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