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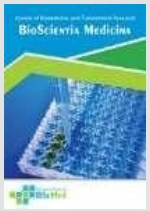

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Navigating Diagnosis and Treatment of Perianal Condyloma Acuminata in a Bisexual Man: Clinical and Histopathological Insights

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A B S T R A C T

Background: Condyloma acuminata (CA), caused by Human Papillomavirus (HPV), commonly affects the anogenital region, particularly in young, sexually active individuals. Perianal presentation is less common but significant, often linked to specific sexual practices. Bisexual men represent a unique demographic concerning STI risk factors and require careful assessment. This report details the diagnosis and management of perianal CA in a young bisexual male, emphasizing the diagnostic utility of clinical assessment, sexual history, and histopathology. **Case presentation:** A 24-year-old Indonesian bisexual male presented with a three-month history of progressively enlarging, asymptomatic perianal nodules. He reported unprotected receptive anal intercourse with a male partner five months prior. Examination revealed multiple skin-colored, verrucous papules in the perianal region. HIV and syphilis screenings were negative. Histopathological examination of a biopsy specimen confirmed CA, showing parakeratosis, papillomatosis, acanthosis, and koilocytosis. **Conclusion:** Treatment with 90% trichloroacetic acid (TCA) combined with cauterization resulted in significant clinical improvement at one-week follow-up. This case highlights the importance of obtaining a thorough, non-judgmental sexual history, recognizing characteristic lesion morphology, and utilizing histopathology for definitive diagnosis in managing perianal CA, particularly in populations with diverse sexual practices.

1. Introduction

Condyloma acuminata (CA), commonly known as anogenital warts, is a prevalent sexually transmitted infection (STI) caused by the human papillomavirus (HPV). The global prevalence of HPV is notably high, with estimates indicating that nearly one in three men over the age of 15 is infecte d with at least one genital HPV type. The diversity of HPV is extensive, with over 100 types identified, and low-risk types 6 and 11 are responsible for approximately 90% of CA cases. These viral infections typically manifest as benign epithelial proliferations on the mucosal and cutaneous surfaces of the anogenital area, although they can also occur in the oral and laryngeal regions. CA predominantly affects young, sexually active adults, with the peak incidence in males often observed between 25 and 29 years of age. Epidemiological data indicate a higher prevalence among males, which is potentially associated with behavioral factors such as having multiple partners and less frequent condom use compared to women.[1-3]

The transmission of CA occurs primarily through direct skin-to-skin or mucosal contact during various forms of sexual activity, including genital-genital, oral-genital, and ano-genital contact. While CA commonly involves the external genitalia, penis, vulva, and vagina, the involvement of the perianal region is considered relatively less frequent but clinically

significant, often associated with anal intercourse. Sexual orientation and practices play a crucial role in the epidemiology and presentation of CA. While most reported cases involve heterosexual individuals, men who have sex with men (MSM) and bisexual men can be at an increased risk for anogenital HPV infection and subsequent CA, particularly perianal lesions, which are often linked to receptive anal intercourse. Obtaining a comprehensive and non-judgmental sexual history is paramount in the risk assessment, diagnosis, and patient counseling of CA. The diagnosis of CA is often clinical, based on the characteristic appearance of the lesions; however, atypical presentations or diagnostic uncertainty may necessitate auxiliary tests or a biopsy for histopathological confirmation. Histopathology provides a definitive diagnosis by identifying characteristic features like koilocytosis and helps exclude differential diagnoses, including malignancy.[4-7]

Management of CA aims to clear visible warts, alleviate symptoms, and reduce transmission, utilizing various modalities from topical agents like trichloroacetic acid (TCA) to procedural interventions like cauterization or excision. Despite treatment, recurrence remains a challenge in the management of condyloma acuminata.[8-10] This report details the case of a 24-year-old bisexual male who presented with perianal CA. The report will discuss the diagnostic approach, emphasizing the integration of clinical findings, a detailed sexual history, and the confirmative role of histopathology, alongside the treatment strategy employed. Ultimately, this case underscores the specific considerations that are important in managing CA within the bisexual male population.

2. Case Presentation

The patient under consideration is a 24-year-old male. His age is noteworthy as condyloma acuminata, the condition ultimately diagnosed, frequently manifests in young, sexually active individuals. This age demographic often correlates with increased sexual activity and potential exposure to sexually transmitted infections (STIs). The patient identifies as male, which is a crucial detail for epidemiological and clinical context, as the prevalence and presentation of certain STIs can vary between sexes. Ethnically, the patient is Javanese and an Indonesian citizen. This information provides important context regarding potential genetic predispositions, cultural practices, and regional health patterns that might influence the presentation, diagnosis, and management of his condition. Indonesia, as a Southeast Asian country, has its own unique epidemiological landscape concerning STIs, and understanding the patient's ethnicity helps in placing the case within a broader public health perspective. Furthermore, cultural factors can influence health-seeking behavior, communication about sexual health, and acceptance of certain treatments. The patient's marital status is unmarried. While marital status is not a direct causative factor for condyloma acuminata, it can indirectly influence sexual behavior and partner dynamics, which are significant risk factors for STIs. Unmarried individuals may, statistically, have different patterns of sexual activity compared to married individuals, which can affect their risk profile for acquiring STIs. This detail also helps in understanding the patient's social context and potential support systems. Occupationally, the patient is employed at a restaurant. While seemingly unrelated to his medical condition, occupation can provide insights into the patient's socioeconomic status, potential exposure to certain environmental factors, and lifestyle patterns. It may also indirectly influence access to healthcare, health insurance coverage, and the ability to take time off for medical appointments and treatment. Understanding the patient's occupation contributes to a more holistic view of his overall health and well-being. The patient presented at the Dermatology and Venereology Clinic of R.A.A. Soewondo Pati General Hospital, Indonesia. This is the specific location where the patient sought medical care, and it is important for understanding the healthcare resources available to him. R.A.A.

Soewondo Pati General Hospital's location within Indonesia is relevant for considering regional healthcare practices, prevalence of specific diseases, and access to specialized medical services. The choice of a Dermatology and Venereology Clinic indicates the patient's or referring physician's recognition of the nature of his symptoms as related to skin and sexually transmitted infections. The patient's chief complaint was the presence of perianal nodules for three months. This is the primary reason for his seeking medical attention and establishes the duration of his symptoms. The perianal region is a specific anatomical location, and nodules in this area can have various etiologies, necessitating a differential diagnosis. The three-month duration suggests a subacute or chronic process, rather than an acute, self-limiting condition. This timeframe is crucial for evaluating the progression of the condition and considering potential causes. The history of the present illness reveals that the lesions initially appeared small and progressively enlarged and increased in number over a period of three months. This progression is a key characteristic of the condition and helps in distinguishing it from other dermatological or anorectal disorders. The gradual increase in size and number of lesions is consistent with the typical growth pattern of condyloma acuminata, which is caused by the proliferation of epithelial cells due to HPV infection. Notably, the lesions were reported as asymptomatic, with no itching or pain initially. This absence of typical inflammatory symptoms is common in the early stages of condyloma acuminata. However, the patient did report painful defecation, occasionally accompanied by blood, for one month. This development of pain and bleeding is significant. Painful defecation (dyschezia) suggests that the lesions may be causing mechanical irritation or obstruction during bowel movements, or that they have become inflamed or ulcerated. The presence of blood (hematochezia) indicates potential trauma to the lesions, possibly due to their location and the passage of stool. It also raises concerns about other potential anorectal pathologies that must be ruled out. The change from asymptomatic to symptomatic over the three-month period provides a timeline of the disease's evolution. The patient's past medical history is significant for the absence of similar complaints. This suggests that this is a new onset of the condition, rather than a recurrence or chronic issue. He reported no history of systemic diseases, including heart disease, diabetes, hypertension, and malignancy. This is important for assessing the patient's overall health status and identifying potential comorbidities that could affect treatment decisions or prognosis. The absence of a history of long-term corticosteroid or chemotherapy use is relevant because these medications can suppress the immune system, potentially predisposing individuals to infections like HPV. Finally, the patient reported no known drug or food allergies, which is crucial for ensuring safe administration of any prescribed medications or treatments. The patient denied any history of other STIs, specifically mentioning vesicles, ulcers, and urethral discharge. This is important because these symptoms are characteristic of other STIs, such as herpes simplex virus infection (vesicles), syphilis (ulcers), and gonorrhea or chlamydia (urethral discharge). While the patient denies these specific symptoms, it is essential to interpret this information cautiously, as patients may not always accurately recall or report past STI history due to stigma, embarrassment, or incomplete knowledge. However, this information guides the clinician in considering the likelihood of other concurrent STIs. The patient's social history includes living with his parents. This provides context about his living situation and potential social support. He reported a history of alcohol consumption, which, while not directly related to condyloma acuminata, can be a factor in overall health and may indirectly influence sexual behavior or judgment. Importantly, he denied smoking and illicit drug use, which are significant risk factors for various health problems and can also affect immune function. The sexual history is a critical component of the anamnesis, particularly for a condition like condyloma acuminata, which is primarily sexually transmitted. The patient's sexual orientation is bisexual, which is a

crucial detail for understanding his potential risk factors and sexual practices. It is essential to obtain this information in a sensitive and non-judgmental manner to ensure accurate reporting and build trust. He reported being currently in a relationship with a female, but denied any sexual activity with her. This information helps to narrow down the potential timeframe and source of infection. He also reported having had a male ex-partner. Significantly, he disclosed a history of unprotected receptive anal intercourse on two occasions with this male partner five months prior to presentation. This is a major risk factor for perianal condyloma acuminata, as anal intercourse, especially when receptive and unprotected, facilitates the transmission of HPV. The patient's last sexual activity with this male partner was approximately three months prior. This timeframe correlates with the onset of his symptoms and supports the likelihood of HPV transmission during that encounter. Finally, the patient reported an unknown sexual history of his ex-partner. This lack of information makes it difficult to assess the ex-partner's potential risk and underscores the importance of safer sex practices. The patient reported no family members with similar symptoms. This helps to rule out a potential genetic predisposition or familial transmission of the condition. Condyloma acuminata is not typically inherited, so a negative family history is consistent with the usual mode of acquisition through sexual contact. The patient's general condition was described as good, and he was fully alert. This indicates that he was not experiencing any systemic symptoms or significant distress. His vital signs were within normal limits: blood pressure was 120/80 mmHg, pulse was 80 beats per minute, respiratory rate was 20 breaths per minute, and temperature was 36.5°C (axillary). These normal vital signs further support the absence of any acute or systemic illness. The general physical examination revealed no nodules on the lip mucosa and no palpable lymphadenopathy. The absence of oral lesions is important because HPV can sometimes affect the oral cavity. The lack of lymphadenopathy suggests that there was no significant regional lymph node involvement, which would be atypical for uncomplicated condyloma acuminata. However, it is crucial to note that the absence of lymphadenopathy does not entirely rule out other potential infections or malignancies, especially in the context of perianal lesions. The venereological examination focused on the perianal region, which was the site of the patient's chief complaint. Multiple, discrete, skin-colored papules were observed. The lesions were oval in shape, measuring 0.3 cm x 0.8 cm to 0.4 cm x 0.9 cm. The surface of the papules was described as verrucous. This description is highly characteristic of condyloma acuminata. "Verrucous" refers to a wart-like, rough, or cauliflower-like appearance, which is a hallmark of HPV-induced lesions. The fact that the lesions were discrete (separate) and skin-colored is also typical. A firm consistency was noted on follow-up for residual lesions, indicating a possible change in texture after treatment or the inherent nature of the lesion. The detailed description of the lesions is critical for the clinical diagnosis of condyloma acuminata. The laboratory findings included STI screening, which showed negative results for HIV antibody and VDRL/TPHA (Syphilis). These negative results are significant because they rule out two important differential diagnoses. HIV infection can increase the risk of HPV infection and alter its clinical presentation. Syphilis can also cause perianal lesions, and it is crucial to differentiate it from condyloma acuminata. While these tests were negative, it is important to consider the window period for HIV seroconversion, meaning that recent exposure might not be detectable immediately. Therefore, follow-up testing might be warranted depending on the patient's risk factors and clinical presentation. The histopathology (biopsy) results are definitive for the diagnosis. The microscopic analysis of the tissue specimen revealed stratified squamous epithelium showing hyperkeratosis, parakeratosis, acanthosis, and papillomatosis (verrucous pattern). Hyperkeratosis refers to thickening of the stratum corneum (outermost layer of the epidermis), parakeratosis is the

retention of nuclei in the stratum corneum, acanthosis is thickening of the prickle cell layer of the epidermis, and papillomatosis is the upward proliferation of dermal papillae, creating the wart-like appearance. Crucially, koilocytosis was identified. Koilocytes are squamous epithelial cells with nuclear atypia (enlargement, irregularity, hyperchromasia) and perinuclear cytoplasmic vacuolization, which are pathognomonic (diagnostic) for HPV infection. Other features noted included spongiosis (intercellular edema in the epidermis) and dyskeratosis (abnormal keratinization). The dermal stroma was edematous and hyperemic, containing a moderate inflammatory infiltrate composed of lymphocytes, histiocytes, and polymorphonuclear cells (PMNs). Importantly, no signs of malignancy were observed. The conclusion of the histopathology report was that the findings were consistent with condyloma acuminata. Histopathology provides the gold standard for diagnosis, confirming the clinical suspicion and excluding other conditions. Based on the clinical presentation, history, and laboratory findings, the clinical diagnosis was perianal condyloma acuminatum. This diagnosis was made by the clinician based on the totality of the information gathered. The final diagnosis, confirmed by histopathology, was perianal condyloma acuminatum. The histopathological confirmation elevates the clinical diagnosis to a definitive diagnosis, providing a high degree of certainty. This detailed case presentation comprehensively summarizes the patient's clinical findings, integrating demographic information, history, physical examination results, and laboratory data. It highlights the importance of a thorough clinical evaluation and the crucial role of histopathology in confirming the diagnosis of perianal condyloma acuminatum (Table 1).

The management of condyloma acuminata, as presented in this case, necessitates a comprehensive approach that addresses not only the immediate removal of visible lesions but also the crucial aspects of patient education and long-term monitoring. The treatment strategy employed in this instance involved a combination therapy, utilizing both a physician-administered topical chemical agent and electrosurgery. This multimodal approach is often favored in clinical practice to maximize the efficacy of treatment and reduce the likelihood of recurrence. Each component of the treatment, along with the subsequent follow-up and patient management, plays a vital role in achieving a successful outcome. The primary treatment modality employed in this case was a combination therapy. This involved the concurrent use of a physician-administered topical chemical agent and electrosurgery. Combination therapy is a strategic approach in the management of condyloma acuminata due to its potential to leverage the distinct advantages of each method, thereby enhancing overall therapeutic efficacy. Topical chemical agents work through chemical destruction of the wart tissue, while electrosurgery physically destroys the lesions using heat. The rationale behind combining these modalities is to achieve a more thorough eradication of the lesions, potentially reducing the risk of recurrence and improving the speed of clearance. Physician-administered therapy is a critical aspect of this treatment modality. This ensures that the application of the chemical agent and the electrosurgical procedure are performed under direct medical supervision, minimizing the risk of complications and optimizing the therapeutic outcome. Physician administration allows for precise targeting of the lesions, control of the dosage or intensity of the treatment, and immediate management of any adverse reactions. This is particularly important in the perianal region, where the anatomy is complex, and the tissues are sensitive. Topical chemical agents represent a class of medications that induce chemical destruction of the wart tissue. These agents work by causing cellular necrosis or by stimulating an inflammatory response that leads to the destruction of HPV-infected cells. The choice of the specific chemical agent, its concentration, and the method of application are crucial factors that influence the effectiveness and safety of this treatment approach. Electrosurgery, also known as electrocautery, is a surgical technique that uses an electrical current to

cut or destroy tissue. In the context of condyloma acuminata treatment, electrosurgery is employed to ablate the wart tissue through thermal destruction. The high-frequency electrical current generates heat, which causes coagulation, desiccation, or vaporization of the tissue, leading to its removal. Electrosurgery offers the advantage of precise tissue destruction and can be particularly useful for larger or more resistant lesions. However, it requires careful technique and appropriate anesthesia to minimize pain and prevent complications such as scarring. The specific chemical agent used in this case was a Trichloroacetic Acid (TCA) solution. TCA is a strong keratolytic agent that causes chemical coagulation of proteins in the wart tissue, leading to its destruction. It is a commonly used treatment for condyloma acuminata due to its effectiveness and relative ease of application. TCA is typically applied directly to the wart using a cotton-tipped applicator, and care must be taken to avoid contact with the surrounding healthy skin to prevent irritation or chemical burns. The concentration of the TCA solution is a critical factor that determines its potency and potential for adverse effects. The concentration of the Trichloroacetic Acid (TCA) solution used in this case was 90%. This is a high concentration, indicating a potent formulation. Higher concentrations of TCA are generally more effective in destroying wart tissue but also carry a greater risk of local irritation, pain, and potential scarring. The use of a 90% TCA solution necessitates careful application and monitoring by the physician to ensure patient safety and optimize treatment outcome. Lower concentrations of TCA may be used for smaller or more sensitive lesions, but higher concentrations are often required for larger or more resistant warts. The choice of concentration depends on various factors, including the size, location, and number of lesions, as well as the patient's tolerance and the physician's experience. The treatment procedure was conducted in Session 1, representing the initial treatment encounter. The first step involved the application of the 90% TCA solution directly onto the perianal condyloma lesions. This application must be precise and targeted to the wart tissue, avoiding contact with the surrounding healthy skin. The physician typically uses a cotton-tipped applicator or a similar instrument to carefully apply a small amount of the TCA solution to each wart. The amount of TCA applied should be sufficient to cover the lesion but not so excessive as to cause runoff or spread to adjacent areas. The patient may experience a transient burning or stinging sensation during the application of TCA, which is generally tolerable. Following the application of TCA, the lesions were subjected to electrocauterization. This procedure involves the use of a device that delivers a high-frequency electrical current to the tissue, causing its destruction through heat. Electrocauterization is performed after the TCA application to further enhance the destruction of the wart tissue and potentially reduce the risk of recurrence. The electrical current is applied to each wart using a fine-tipped electrode, and the physician carefully controls the intensity and duration of the current to achieve the desired effect. Electrocauterization can be associated with pain, and local anesthesia is often used to minimize discomfort. The procedure may also result in some smoke and odor, which are normal byproducts of tissue destruction. The fact that both TCA application and lesion electrocauterization were performed during the same visit is a significant aspect of the treatment strategy. This concurrent approach aims to maximize the immediate therapeutic effect, potentially reducing the number of treatment sessions required and accelerating the patient's recovery. Combining chemical destruction with physical ablation can lead to a more thorough eradication of the HPV-infected cells and the wart tissue. However, this aggressive approach also necessitates careful monitoring for potential complications and appropriate pain management. A follow-up visit was conducted one week after the initial treatment procedure to assess the patient's response to therapy. The follow-up findings revealed significant clinical improvement. This indicates that the combination therapy of TCA and electrocauterization was effective in reducing the severity of the patient's condition.

Clinical improvement is a crucial indicator of treatment success and provides reassurance that the chosen therapeutic approach is appropriate. Specifically, a reduction in the size of the perianal lesions was noted. This is a direct measure of the treatment's efficacy, demonstrating that the TCA and electrocautery had successfully destroyed a portion of the wart tissue. The decrease in lesion size translates to a decrease in the overall burden of the disease and a positive response to the therapy. Furthermore, the follow-up examination revealed the disappearance of lesions previously noted within the anus. This is a significant finding, as it indicates that the treatment was effective not only for the external perianal lesions but also for any internal lesions that may have been present. The clearance of intra-anal lesions is important for alleviating symptoms such as painful defecation and bleeding, and for preventing potential complications. Despite the significant improvement, residual lesions were still present at the one-week follow-up. These lesions were described as multiple small (approximately 0.1 x 0.1 cm), round-to-oval, firm papules/tumors with a verrucous surface, observed in the perianal area. The persistence of residual lesions is a common occurrence in the treatment of condyloma acuminata, as it is often challenging to eradicate all lesions in a single treatment session. The small size of the residual lesions suggests that they may represent either incomplete destruction of the original lesions or the emergence of new lesions. The firm consistency and verrucous surface are consistent with the typical characteristics of condyloma acuminata. The presence of residual lesions necessitates further follow-up and potential additional treatment to achieve complete clearance. It underscores the importance of ongoing monitoring and management in patients with condyloma acuminata. Patient education and counseling are integral components of the management of condyloma acuminata. These interventions aim to empower patients with the knowledge and skills necessary to prevent recurrence, reduce transmission risk, and manage their condition effectively. A key aspect of patient education is counseling on safer sex practices. Consistent condom use is emphasized as a crucial strategy to prevent recurrence and reinfection. Condoms provide a physical barrier that reduces the risk of direct skin-to-skin contact, which is the primary mode of transmission for HPV. Patients are educated on the correct and consistent use of condoms during all sexual encounters, including vaginal, anal, and oral sex. The importance of communicating openly with sexual partners about STI prevention and condom use is also highlighted. Counseling is particularly important for individuals with high-risk behaviors. This includes individuals who have multiple sexual partners, engage in unprotected sex, or have a history of STIs. These individuals are at an increased risk of acquiring and transmitting HPV, and therefore, they require more intensive counseling and support to adopt safer sex practices. The importance of exploring sexual history was highlighted for management. This implies that a discussion about the patient's sexual history occurred as part of the counseling process. Obtaining a thorough and non-judgmental sexual history is crucial for assessing risk factors, identifying potential sources of infection, and providing tailored advice on prevention. It also helps to establish a trusting relationship between the patient and the healthcare provider, which is essential for effective communication and adherence to treatment recommendations. The planned future actions for this patient involve further follow-up visits. These visits are scheduled to monitor the patient's progress and assess the need for additional treatment sessions to address the residual lesions. Follow-up is a critical aspect of condyloma acuminata management, as recurrence is common, and ongoing monitoring is necessary to ensure complete clearance of the lesions and prevent complications. The frequency and duration of follow-up visits may vary depending on the patient's response to treatment, the presence of residual lesions, and the risk of recurrence. During these visits, the physician will assess the size, number, and appearance of the lesions, and inquire

about any symptoms or concerns the patient may have. Additional treatment sessions may be required to address persistent or recurrent lesions. The treatment approach for residual lesions may be the same as the initial treatment or may involve alternative modalities, depending on the clinical situation (Table 2).

Table 1. Summary of patient's clinical findings.

Category/Parameter	Findings/Details
Demographics	
Age	24 years
Gender	Male
Ethnicity	Javanese (Indonesian Citizen)
Marital status	Unmarried
Occupation	Employee at a restaurant
Location of presentation	Dermatology and Venereology Clinic, R.A.A. Soewondo Pati General Hospital, Indonesia
Anamnesis (History)	
Chief complaint	Perianal nodules present for 3 months
History of present illness	Lesions initially small, progressively enlarged and increased in number over 3 months. Asymptomatic (no itching, no pain). Reported painful defecation, occasionally bloody, for 1 month.
Past medical history	No history of similar complaints. No history of systemic diseases (heart disease, diabetes, hypertension, malignancy). No history of long-term corticosteroid or chemotherapy use. No known drug or food allergies.
Past STI history	Denied history of other STIs (vesicles, ulcers, urethral discharge).
Social history	Lives with parents. History of alcohol consumption. Denied smoking, illicit drug use.
Sexual history	- Orientation: Bisexual - Partners: Currently in a relationship with a female (denied sexual activity with her). Had a male ex-partner. - Practices: History of unprotected receptive anal intercourse (twice) with male partner 5 months prior. Last sexual activity ~3 months prior with male partner. - Partner History: Unknown sexual history of ex-partner.
Family history	No family members with similar symptoms.
Physical examination	
General condition	Good general condition, fully alert.
Vital signs	Blood Pressure: 120/80 mmHg; Pulse: 80 bpm; Respiratory Rate: 20 breaths/min; Temperature: 36.5°C (axillary).
General physical	No nodules on lip mucosa. No palpable lymphadenopathy.
Venereological examination	**Perianal Region:** Multiple, discrete, skin-colored papules. Oval shape, measuring 0.3 cm × 0.8 cm to 0.4 cm × 0.9 cm. Verrucous surface. Firm consistency noted on follow-up for residual lesions.
Laboratory findings	
STI screening	HIV Antibody: Negative; VDRL/TPHA (Syphilis): Negative
Histopathology (Biopsy)	Stratified squamous epithelium showing: - Hyperkeratosis, Parakeratosis - Acanthosis, Papillomatosis (verrucous pattern) - Koilocytosis - Spongiosis, Dyskeratosis - Edematous/hyperemic dermal stroma with moderate inflammatory infiltrate (lymphocytes, histiocytes, PMNs) - No signs of malignancy. **Conclusion:** Findings consistent with Condyloma Acuminata.
Clinical diagnosis	
Final diagnosis	Perianal Condyloma Acuminatum

Table 2. Treatment procedure and follow-up summary.

Aspect	Details
Treatment modality	Combination Therapy: Physician-administered Topical Chemical Agent and Electrosurgery
Agent used	Trichloroacetic Acid (TCA) Solution
Concentration	90%
Procedure	**Session 1 (Initial Treatment):**
	Application of 90% TCA solution directly onto the perianal condyloma lesions.
	Followed by lesion electrocauterization (destruction using high-frequency electrical current) during the same visit.
Follow-up findings (Week 1)	Significant clinical improvement observed.
	Reduction in the size of perianal lesions noted.
	Disappearance of lesions previously noted within the anus.
	Residual lesions present: multiple small (approx. 0.1 x 0.1 cm), round-to-oval, firm papules/tumors with a verrucous surface observed in the perianal area.
Patient education & counseling	The importance of counseling patients on safer sex practices (consistent condom use) to prevent recurrence and reinfection, particularly for those with high-risk behaviors.
	The importance of exploring sexual history was highlighted for management, implying discussion occurred.
Planned future actions	Further follow-up visits scheduled to monitor progress and assess the need for additional treatment sessions for residual lesions.

Figure 1. Venereological examination on first visit.

Figure 2. Clinical improvement one week after therapy.

3. Discussion

The patient's age is a salient factor in this case. Condyloma acuminata is predominantly a disease of young, sexually active individuals, with the peak incidence for males occurring between 25 and 29 years of age. This age range is characterized by a higher likelihood of engaging in behaviors that increase the risk of acquiring sexually transmitted infections (STIs). The patient's age of 24 aligns with this epidemiological trend, reinforcing the understanding that young adulthood is a critical period for STI prevention and management interventions. The patient's sex, male, is also a relevant demographic consideration. Epidemiological studies have consistently demonstrated a higher prevalence of CA among males compared to females. This disparity may be attributed to a combination of behavioral, social, and biological factors. Behavioral factors may include differences in sexual practices, such as a potentially higher number of sexual partners or less consistent condom use among some male populations. Social factors can encompass varying attitudes towards sexual health and healthcare-seeking behavior. Biological factors might involve differences in susceptibility to HPV infection or the clinical manifestation of the disease. Ethnicity, in this case, Javanese (Indonesian citizen), introduces another layer of complexity. While the direct influence of ethnicity on CA prevalence and presentation may not be extensively documented, it is essential to acknowledge the potential role of cultural and socioeconomic factors. Cultural norms and beliefs can shape sexual behaviors, communication about sexual health, and access to healthcare services. Socioeconomic status can influence access to preventive measures, such as HPV vaccination and regular STI screening. In Indonesia, a Southeast Asian country, the epidemiology of STIs may have unique characteristics due to these factors, necessitating culturally sensitive and contextually appropriate healthcare approaches. The patient's marital status, unmarried, is a social factor that can indirectly influence STI risk. Unmarried individuals may, on average, have different patterns of sexual activity compared to married individuals. This can include a higher number of sexual partners or a greater likelihood of engaging in casual sexual encounters, both of which can increase the risk of STI acquisition. However, it is crucial to avoid generalizations, as sexual behavior is highly individual and influenced by a multitude of personal and social factors. Occupation, employee at a restaurant, is a demographic detail that provides insights into the patient's socioeconomic context. While seemingly unrelated to CA, occupation can indirectly affect health outcomes. It can influence access to health insurance, the ability to take time off for medical appointments, and exposure to occupational hazards. Furthermore, socioeconomic factors associated with certain occupations can contribute to health disparities, including differences in STI prevalence and access to care. The location of presentation, the Dermatology and Venereology Clinic of R.A.A. Soewondo Pati General Hospital, Indonesia, is significant for understanding the healthcare setting in which the patient was managed. The choice of a Dermatology and Venereology Clinic indicates that the patient's symptoms were recognized as potentially related to skin and sexually transmitted infections, leading to appropriate referral or self-referral. The specific hospital and its location within Indonesia provide context about the availability of specialized medical services and the local healthcare infrastructure. Regional variations in STI prevalence and healthcare practices can influence the diagnosis and management of CA.[11-14]

A critical aspect of this case is the identification and evaluation of risk factors, particularly those related to sexual behavior. The patient's self-reported history of unprotected receptive anal intercourse is a major risk factor for perianal CA. Anal intercourse, especially when receptive and unprotected, creates a direct route for the transmission of HPV. The delicate mucosal lining of the anal canal is more susceptible to microtrauma during intercourse, which can facilitate viral entry and infection. The patient's bisexuality is a

crucial element of his sexual history that necessitates careful consideration. Bisexuality, as a sexual orientation, involves attraction to both men and women. Individuals who identify as bisexual may engage in sexual activity with partners of either sex, which can influence their risk profile for STIs. In the context of CA, bisexual men may be at risk through both heterosexual and same-sex sexual contact. It is essential for clinicians to be aware of the specific sexual practices of bisexual patients to provide appropriate counseling, screening, and management. The temporal relationship between the patient's sexual history and the onset of his symptoms is noteworthy. The patient reported having unprotected receptive anal intercourse approximately five months prior to presentation and that his last sexual activity with the male partner was about three months before seeking medical attention. The incubation period for HPV, the time between exposure and the development of visible warts, can range from weeks to months, with an average of about 2 to 3 months. This timeframe aligns with the patient's history and supports the likelihood that his CA was acquired through sexual contact with his male ex-partner. The patient's report of being currently in a relationship with a female partner but denying recent sexual activity with her is also relevant. This information helps to narrow down the potential source of infection and suggests that his current partner is unlikely to be the source. However, it is essential to counsel the patient about the potential for transmission to his female partner in the future, even if he is not currently sexually active with her. HPV can persist in the body for extended periods, and transmission can occur even in the absence of visible warts. The patient's lack of information regarding the sexual health and behaviors of his ex-partner is a common challenge in clinical practice. Patients may not always have access to information about their partners' sexual history or STI status. This lack of information underscores the importance of safer sex practices, such as consistent condom use, as a primary means of preventing STI transmission. It also highlights the need for partner notification and treatment, when feasible and appropriate, to reduce the risk of reinfection. The patient's social history, including living with his parents and occasional alcohol consumption, provides additional context. While these factors are not direct causes of CA, they can indirectly influence health behaviors and access to care. Alcohol consumption, for instance, may impair judgment and increase the likelihood of engaging in risky sexual behaviors.[15-17]

The patient's chief complaint of perianal nodules present for three months is the primary reason for seeking medical attention. The perianal region is a specific anatomical location, and the presence of nodules in this area necessitates a differential diagnosis to rule out other potential causes. The three-month duration of symptoms suggests a subacute or chronic process, rather than an acute, self-limiting condition. The history of the present illness, characterized by initially small lesions that progressively enlarged and increased in number, is typical of condyloma acuminata. This gradual growth pattern distinguishes CA from other conditions that may cause perianal lesions, such as acute infections or inflammatory processes. The patient's initial report of asymptomatic lesions is also a common feature of early-stage CA. However, the subsequent development of painful defecation, occasionally accompanied by blood, is a significant clinical finding. Painful defecation (dyschezia) suggests that the lesions have grown large enough to cause mechanical irritation or obstruction during bowel movements. Bleeding (hematochezia) indicates that the lesions may have become traumatized, possibly due to their location and the passage of stool. It is crucial to evaluate the cause of bleeding to rule out other potential anorectal pathologies. The absence of similar previous episodes in the patient's past medical history suggests that this is a new-onset condition. This information is important for distinguishing between a new infection and a recurrence of a chronic condition. The patient's denial of other STIs is also relevant, although it should be interpreted cautiously, as patients may not always accurately recall or report past STI history. The

patient's denial of constitutional symptoms, such as weight loss, chronic cough, or prolonged diarrhea, is important for ruling out systemic illnesses. These symptoms can be associated with conditions such as HIV infection or malignancy, which can sometimes have dermatological manifestations. The patient's unremarkable past medical history for chronic systemic diseases and the absence of long-term corticosteroid or chemotherapy use are significant. These conditions and medications can affect the immune system, potentially predisposing individuals to infections like HPV. The absence of a family history of similar skin conditions helps to rule out a genetic predisposition to CA. While genetic factors can influence immune responses to viral infections, CA is primarily acquired through sexual contact. The physical examination findings are crucial for the clinical diagnosis of CA. The patient's good general condition and normal vital signs indicate the absence of systemic illness. The absence of oral lesions and lymphadenopathy is also noteworthy. Oral lesions can occur in some cases of HPV infection, and lymphadenopathy can suggest regional lymph node involvement, which is not typical of uncomplicated CA. The venereological examination, focusing on the perianal region, revealed the characteristic features of condyloma acuminata. The multiple, discrete, skin-colored papules with a verrucous (wart-like) surface are consistent with the typical clinical appearance of these lesions. The size and shape of the lesions, as described in the report, provide further detail for diagnostic purposes.[18-20]

4. Conclusion

This case report illustrates the successful diagnosis and management of perianal condyloma acuminata in a 24-year-old bisexual male. The patient presented with perianal nodules, and a thorough clinical evaluation, including a detailed sexual history, was crucial in identifying unprotected receptive anal intercourse as a significant risk factor. Histopathological examination of the lesions confirmed the diagnosis of condyloma acuminata, demonstrating the importance of biopsy in cases with atypical presentations or diagnostic uncertainty. The treatment approach, combining 90% trichloroacetic acid and cauterization, proved effective in achieving significant clinical improvement. This case underscores the need for clinicians to obtain comprehensive sexual histories in a non-judgmental manner, recognize the varied clinical presentations of CA, and utilize histopathology for accurate diagnosis. Furthermore, it highlights important considerations in managing CA in specific populations, such as bisexual men, who may have unique risk factors and healthcare needs.

5. References

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