## Geographic Distribution of Dermatologic STI Manifestations in Urban Settings

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# **Introduction & Objectives:**

Population growth and urbanization have been dramatically increasing over the years, resulting in increased human interactions, changes in social norms and potentially changing the scope of sexually transmitted infections (STIs). STIs such as gonorrhea and chlamydia, if left untreated, are associated with negative reproductive impacts such as epididymitis and proctitis in males, fertility issues, chronic pelvic pain, and pelvic inflammatory disease (PID) in women. STIs are known to affect lower socioeconomic communities, especially in urban areas. Understanding the dermatologic STI manifestations across urban areas is an important public health issue that needs to be addressed to reduce the negative impacts of STIs.

# **Materials & Methods:**

This review investigated the distribution of dermatologic manifestations of sexually transmitted infections (STIs) in urban populations. A comprehensive search was conducted across peer-reviewed databases, including PubMed, Scopus, and Google Scholar, using relevant keywords such as "STI dermatologic manifestations," "urban health disparities," "sexually transmitted infections," and "healthcare access." Studies were included if they focused on STI-related dermatologic presentations in urban populations and discussed factors such as socioeconomic status, healthcare accessibility, and cultural influences on diagnosis and treatment. Exclusion criteria included studies that did not specify urban settings or lacked dermatologic focus. Data extraction focused on prevalence patterns, healthcare disparities, and public health implications. Findings were synthesized to identify trends in STI dermatologic presentations and their association with urban health disparities.

#### **Results:**

This literature review examines the geographic distribution of dermatologic manifestations of STIs in urban areas, revealing critical trends and disparities linked to socioeconomic factors and healthcare access. Higher prevalence rates of specific conditions, such as herpes simplex virus and syphilis, are noted in certain regions, often exacerbated by cultural stigma and underreporting. The findings highlight the importance of recognizing STI-related dermatological symptoms for timely diagnosis and treatment, emphasizing the need for tailored training among dermatologists and healthcare providers. Enhancing awareness can improve patient outcomes, reduce transmission rates, and inform targeted public health strategies, demonstrating the necessity for comprehensive education in urban healthcare settings.

# **Conclusion:**

The geographic distribution of dermatologic manifestations associated with STIs in urban settings highlights the complex relationship between social, economic, and structural determinants of health. Urban environments, with

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their diverse populations and unequal access to healthcare resources, present distinct challenges in managing STI-related dermatologic issues. Advanced epidemiological research, targeted public health initiatives, and community-focused interventions are essential for identifying high-risk populations and developing effective prevention and treatment strategies. Collaborative efforts among healthcare providers, policymakers, and community organizations are crucial for addressing disparities, reducing STI prevalence, and improving overall health outcomes in urban populations.



Correlation between Total Volume and Clinical Severity Degree of Anogenital Wart Lesions with Lesion Tissue Concentrations of IFN-y, NF-kB, and Treg-FOXP3+

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**Introduction & Objectives:** Anogenital wart (AGW) is the most common sexually transmitted infection, caused by *Human papillomavirus*. Immune dysregulation in AGW and host's immune response are likely to influence the lesions size and severity degree. Several studies shown an increase of Treg in biopsy lesions, activation of NF-κB levels, and decrease of IFN-γ in the serum of AGW's patients. The sequence of events in the lesion's local immune system is considered to play more significant role in HPV replication, pathomechanisms, proliferation, and persistency of AGW. This study aimed to determine the correlation between total volume and AGW's clinical severity degree with concentrations of IFN-γ, TregFOXP3+, and NF-κB in lesion tissue.

Materials & Methods: Subjects involved 78 AGW patients, presenting lesions on external genitalia and/or perianal, with diameter 5–< 50 mm. Lesion's total volume measured using skin calliper, and sampled using cotton swab for examination of IFN-γ, TregFOXP3+, and NF-κB concentrations with ELISA kit. Spearman's Rho correlation test was performed between total AGW lesion volume and biomarker concentrations in lesion tissue. Mann-Whitney used to assess association between clinical severity degree and biomarker concentrations of the lesion.

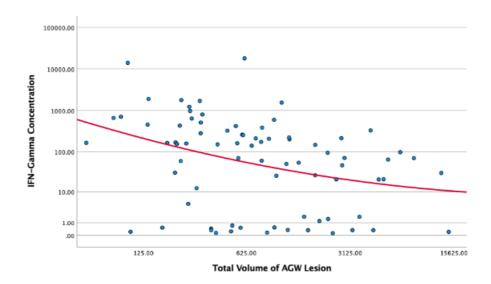
**Results:** AGW lesion's total volume showed a positive correlation with NF-κB (p=0.046), and negative correlations with IFN-γ (p=0.000) and TReg-FOXP3+ (p=0.005). IFN-γ median concentration was much higher in mild clinical degree compared to severe degree (170.27 vs. 51.05; p<0.01). Similarly, Treg-FOXP3+ was higher in mild severity degree compared to severe degree (1.47 vs. 0.96; p<0.01).

**Conclusion:** A higher concentration of NF- $\kappa$ B in the lesion indicates a tendency toward a larger total lesion volume. Larger total lesion volumes and greater clinical severity of AGW lesions were associated with lower concentrations of IFN- $\gamma$  and Treg-FOXP3+ found in the lesion.

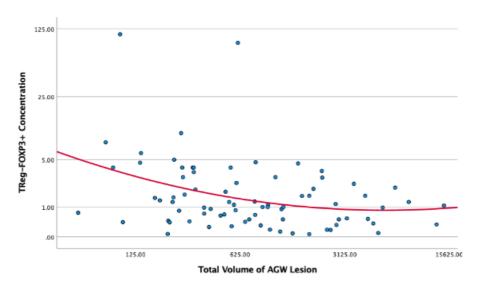
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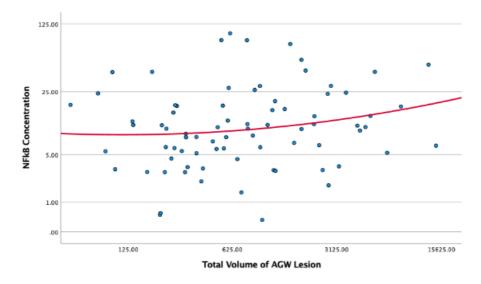
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**Figure 1.** Scatter plot of total volume of AGW lesion with IFN- $\gamma$  concentration.



**Figure 2.** Scatter plot of total volume of AGW lesion with TReg-FOXP3+ concentration.



**Figure 3.** Scatter plot of total volume of AGW lesion with NF-κB concentration.

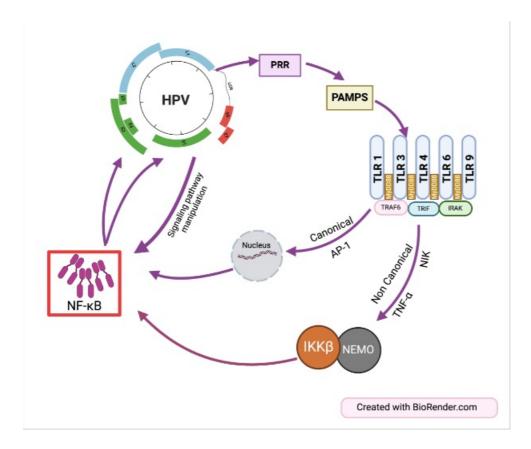
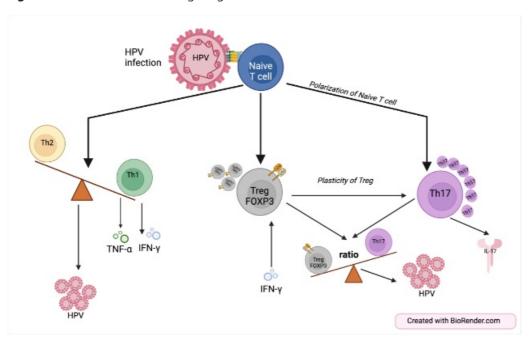


Figure 4. The role of NF-κB in fighting the HPV virus.



**Figure 5.** Overview of the pathomechanism of TReg-FOXP3+ and IFN- $\gamma$  immune response to HPV virus.

# The circle of Clues leading to the diagnosis of Lues - Annular Syphilis, a case series

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# **Introduction & Objectives:**

Syphilis is a sexually transmitted, multisystem infection caused by *Treponema pallidum*. Secondary syphilis presents 6-8 weeks after the primary lesion, typically as a generalized maculopapular eruption, often with palmoplantar involvement. Other presentations include nodular, follicular, ulcerative, pustular, lichenoid and annular eruptions. Rarely, rupioid and corymbiform presentations are also reported. The morphology of the annular variant varies from minimally scaly papules and plaques with erosions to well-formed exophytic verrucous lesions. It is often accompanied with generalised lymphadenopathy and systemic symptoms in 12% of the patients. Herein, we present two cases showing unusual presentation of secondary syphilis with annular lesions.

#### **Materials & Methods:**

A previously well 26-year-old female presented with a one-week history of painless skin rash and groin lesions. She had mild symptoms of fatigue and joint pain. She gave history of similar rash and genital ulcer in husband. On examination multiple, annular, erythematous, papules and plaques with erosions at periphery were noted over the face, back, chest and palms. (Figure 1). She also had erythematous, moist raised papules and plaques with erosions over the groin region suggestive of condyloma lata. Perianal area was uninvolved and rest of the mucocutaneous examination was unremarkable. Diagnosis was confirmed by VDRL with a titer of 1:32 in patient as well as in partner (1:16). Other serological tests were found to be negative. Both were successfully treated with a single dose of inj. Benzathine penicillin 2.4 million IU.

A 33 old male presented with multiple, painless skin lesions over the trunk for 2 weeks duration. He gave history of sexual contact with multiple partners. Clinical examination revealed multiple, annular, erythematous, papules and plaques involving the trunk and back (Figure 2). Inguinal lymph nodes were enlarged and non-tender. VDRL was reactive with a titre of 1:128. Other serological tests were negative. He was treated with three doses of inj. Benzathine penicillin 2.4 million units and counselling was done.

## **Results:**

Secondary syphilis is a great imitator owing to the myriad of clinical presentations with annular lesions being one of the atypical presentations. It is often a challenge to diagnose even for the most experienced dermatologist, considering the variety of differentials that needs to be considered. The relationship between unusual clinical manifestations and high serum titres remains unclear, although a few case reports have suggested a possible correlation.

#### Conclusion:

Maintaining a high index of suspicion is crucial for prompt recognition and treatment of syphilis, particularly in patients with risk factors and atypical skin lesions. Vigilance is key to preventing long-term sequelae and improving patient outcomes.

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IFN- $\gamma$  gene polymorphisms +874 T/A and +2109 A/G are genetic factors associated with the serofast state following early syphilis treatment

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# **Introduction & Objectives:**

Approximately 20% of patients with early syphilis do not show the classical pattern of serological response after syphilis therapy. They experience a serofast state, which manifests as less than a 4-fold decline in non-treponemal titres during a 6-month follow-up period after the end of treatment compared to pre-treatment values. This occurs without any clinical signs of treatment failure or reinfection. The effectiveness of the immune defense against T. pallidum, as well as its potential failure and the occurrence of the serofast state, depends on the Th1 cellular response, including cytokines such as IFN- $\gamma$ . The aim of this study is to investigate the impact of IFN- $\gamma$  gene polymorphisms on the occurrence of the serofast state.

#### **Materials & Methods:**

A cohort of 113 patients with early syphilis (73.5% secondary syphilis, 26.5% early latent syphilis) and 50 healthy volunteers were enrolled. Two single nucleotide polymorphisms (SNPs) in the IFN- $\gamma$  gene promoter region, +874 T>A (rs2430561) and +2109 A>G (rs1861494), were analyzed. Serum IFN- $\gamma$  levels were measured before and six months post-treatment. Patients were stratified into serofast (n=22) and serologically cured (n=91) groups.

## **Results:**

Serofast patients exhibited significantly lower baseline serum IFN- $\gamma$  levels compared to the serologically cured group (p=0.01). All healthy subjects had IFN- $\gamma$  levels below the detection limit. Analysis of IFN- $\gamma$  gene polymorphisms revealed a significant association with treatment outcomes. The +874 AA and +2109 GG genotypes, associated with low IFN- $\gamma$  production, were significantly more frequent in serofast patients (p=0.0001 and p=0.0007, respectively), with odds ratios (OR) of 8.1 (95% CI: 2.8-23.5) and 5.6 (95% CI: 2.1-15.3), respectively. Additionally, carriers of the +874A/+2109G haplotype were significantly more likely to remain serofast (OR 3.8, p=0.01). Conversely, the +874 TT and +2109 AA genotypes, associated with high IFN- $\gamma$  production, were significantly linked to serological cure (OR 5.4, p=0.03; OR 4.0, p=0.02). Similarly, the +874T/+2109A haplotype was strongly associated with serological cure (OR 15.9, p<0.0001).

# **Conclusion:**

Distinct IFN- $\gamma$  polymorphisms and haplotypes are associated with serological outcomes in syphilis. The +874 T>A and +2109 A>G variants influence IFN- $\gamma$  levels, potentially modulating the immune response and serological recovery. These findings suggest a genetic predisposition underlying serofast syphilis and underscore the importance of personalized approaches in its management.

## HIV-Associated Kaposi's Sarcoma in a Patient with Recurrent Secondary Syphilis: A Clinical Case Report

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**Introduction & Objectives:** Kaposi's sarcoma (KS) is a vascular tumor frequently associated with advanced HIV infection. Co-infections such as syphilis may complicate the clinical presentation, diagnosis, and management of KS. This report describes a clinical case highlighting the diagnostic challenges and therapeutic approach in a patient with concurrent HIV, KS, and recurrent secondary syphilis.

**Materials & Methods:** Case Presentation\*\* of a 32-year-old female patient was referred to our clinic from the Bukinsky district HIV center with an initial diagnosis of limited-form psoriasis. On examination, bluish-red cutaneous nodules were identified, prompting suspicion of Kaposi's sarcoma. The patient reported the lesions had been present for approximately six months without any prior treatment. Her medical history was notable for unprotected sexual activity, alcohol abuse, and bilateral cataracts. HIV infection was confirmed via serological testing, along with recurrent secondary syphilis. A skin biopsy confirmed the diagnosis of Kaposi's sarcoma.

**Discussion:**\*\* The co-existence of HIV and syphilis poses diagnostic challenges due to overlapping dermatological manifestations. In this case, a multidisciplinary diagnostic approach was crucial. Treatment consisted of initiating antiretroviral therapy (ART) for HIV, penicillin therapy for syphilis, and consideration of systemic or localized therapy for KS, depending on clinical progression. Restoring immune function through ART was central to the therapeutic plan.

**Conclusion:** This case underscores the importance of early recognition and a comprehensive diagnostic strategy when evaluating skin lesions in HIV-positive patients. Coinfections such as syphilis can obscure or mimic manifestations of KS, delaying treatment. Further clinical research is needed to assess the impact of co-infections on KS progression and to optimize treatment strategies in immunocompromised populations.

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## The Great Impostor: Atypical Manifestations of a Common Disease in an HIV Patient

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# **Introduction & Objectives:**

Syphilis is a disorder that can mimic other diseases, and its incidence has varied throughout history. Patients with both HIV and syphilis may present with atypical skin manifestations. A particularly aggressive form, **lues maligna**, is characterized by papules that evolve into necrotic nodules with pustules, eventually ulcerating. The lesions can affect the face, trunk, and extremities and are often associated with systemic symptoms such as fever, and may coexist with neurosyphilis, hepatitis, ocular involvement, or more rarely, pulmonary involvement. The ulcerated lesions are typically due to skin necrosis secondary to vasculitis or thrombosis of medium-sized arteries caused by Treponema pallidum.

#### **Materials & Methods:**

A 28-year-old male presented to the ER with disseminated dermatosis affecting his head, trunk, and all four extremities, including palmoplantar involvement. The skin lesions began as papules on his chest and, within 10 days, spread to his extremities, with some lesions having necrotic centers and pseudopustules. Initially diagnosed as varicella, the patient's condition worsened after antiviral treatment, with the onset of fever, malaise, odynophagia, and joint pain. Laboratory tests revealed leukocytosis with neutrophilia (WBC 16.9, neutrophils 14.85) and elevated CRP (22.10). PCR tests for Mpox were negative, and HIV testing revealed a viral load of 125,355 copies and a CD4 count of 390. A VDRL test was positive (titer 1:32). A skin biopsy from the right forearm showed a dense infiltrate of plasma cells, lymphocytes, and histiocytes. Neurology and ophthalmology evaluations ruled out CNS involvement. A diagnosis of malignant syphilis was confirmed, and the patient was treated with antiretroviral therapy (bictegravir, emtricitabine, and tenofovir alafenamide) and two doses of intramuscular penicillin. The lesions resolved within a month, leaving residual scars. At a 3-month follow-up, the VDRL titer had decreased to 1:4.

## **Results:**

Malignant syphilis is a rare and severe form of secondary syphilis that typically occurs 6 weeks to 1 year after primary infection, though it can develop more rapidly in HIV patients. Concurrent HIV infection increases the risk of malignant syphilis by up to 60 times. The condition is characterized by a short incubation period, a prodrome of fever, arthralgia, and myalgia, and pleomorphic skin lesions that evolve into noduloulcerative lesions. Mucosal involvement and systemic symptoms, including gastrointestinal complaints and hepatosplenomegaly, are common. The pathogenesis of malignant syphilis seems to depend more on the host's immune status than on the spirochete itself, with immunocompromised individuals, particularly those with HIV, being at higher risk. Diagnosis can be challenging due to the variable presentation and broad differential, but histopathological findings such as dermal infiltrates with plasma cells and lymphocytes, often with vascular damage, support the diagnosis. The absence of a Jarisch-Herxheimer reaction, which is not consistently observed in all cases, does not preclude the diagnosis.

## **Conclusion:**

Malignant syphilis is a rare, aggressive form of secondary syphilis that is primarily observed in HIV-infected patients. Its diagnosis can be difficult due to its atypical presentation and broad differential diagnosis. Early recognition, based on clinical, serological, and histopathological data, is essential for timely treatment.

# Emerging role of Klebsiella aerogenes in facial folliculitis among men who have sex with men: a case report

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# **Introduction & Objectives:**

Folliculitis is a common inflammatory condition of the hair follicles, typically presenting with follicular papules and pustules. It most frequently affects adolescents and adults, with a predilection for areas rich in terminal hairs or subject to occlusion, such as the beard region. Shaving and certain external factors -including irritants, medications, and microbial agents- may predispose individuals to folliculitis. Among infectious causes, Gramnegative bacteria -such as *Klebsiella*, *Escherichia coli*, *Enterobacter*, and *Proteus* species- have been implicated, particularly in patients with acne vulgaris undergoing prolonged antibiotic therapy.

Recent reports suggest that *Klebsiella aerogenes* may play a role in facial folliculitis among men who have sex with men (MSM), raising the possibility of a novel sexually transmitted pathogen. Herein, we present a case of persistent beard folliculitis in an MSM patient owing to *K. aerogenes*.

## **Materials & Methods:**

This is a retrospective case study based on the patient's clinical history. Relevant scientific literature was examined to explore the emerging role of *K. aerogenes* in facial folliculitis among MSM and to evaluate potential treatment strategies.

#### Results:

A 23-year-old man who has sex with other men and frequents community hot tubs presented with persistent beard folliculitis over a three-year period. Previous treatments with oral doxycycline, topical clindamycin, and intranasal mupirocin yielded no significant improvement. Partial clinical response was noted following the initiation of oral isotretinoin. On examination, follicular erythema and a single pustule were observed on the upper lip. The patient reported infrequent shaving of the affected area and used a personal electric razor. He also denied close contact with animals. Culture of the pustule identified wild-type *K. aerogenes*. Combination therapy with ciprofloxacin 500 mg twice daily and isotretinoin 20 mg once daily was initiated, along with the application of topical gentamicin sulfate 0.3% in an oil-in-water emulsion every twelve hours to the beard, mustache and nasal vestibules to target *K. aerogenes* local colonization sites. Complete resolution was achieved after twenty-one days of combined treatment.

## Conclusion:

*K. aerogenes* is an opportunistic Gram-negative bacterium widely present in environmental and hospital settings, primarily linked to respiratory, urinary, and bloodstream infections. Its role in cutaneous infections has recently gained attention, particularly among MSM. A genomic study reported a high nasal carriage rate in this population, raising the hypothesis of sexual transmission. Oro-anal contact may facilitate cephalic translocation of enteric

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bacteria, explaining unusual colonization sites such as the beard or nasal area. A recent case series described seven MSM patients with facial folliculitis associated with *K. aerogenes*. Most achieved remission with extended antibiotic regimens (2–6 weeks), while others relapsed after treatment cessation. Notably, hot tub exposure was a recurrent factor among them. Our case aligns with these findings, reinforcing the possible sexual transmission pathway and the environmental contribution to persistence or recurrence. We suggest that *K. aerogenes* be considered in the differential diagnosis of folliculitis in MSM. Bacterial cultures should be performed, prolonged treatment considered, and potential sources such as communal hot tubs avoided to prevent recurrence.

The great imitator strikes again: secondary syphilis masquerading as granulomatous dermatitis in an HIV positive male- a case report

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# **Introduction & Objectives:**

Syphilis is a sexually transmitted infection caused by the bacterium Treponema pallidum. It is referred to as the great imitator because it can manifest in various clinical pictures, especially in the secondary stage, when the skin lesions and histological presentation may be atypical. The clinical picture can be even more confounding in patients with HIV. We present a diagnostically challenging case mimicking granulomatous dermatitis.

#### **Results:**

A 48-year-old male presented with a nonpruritic, nonpainful, annular rash that had been present for 7-10 days and covered his limbs and trunk. Besides the newly appeared rash, he also presented with signs of pityriasis versicolor on his trunk. The patient had a history of HIV infection with an undetectable viral load on antiretroviral therapy.

Skin examination revealed numerous annular and arcuate infiltrated plaques on the trunk and extremities, without associated scaling. The lesions were well demarcated and palpable, with raised borders and a slightly depressed centre. Mucosae, palms and soles were spared. At the time of examination, no signs of systemic involvement were found. Based on the clinical picture, our working diagnosis was generalised granulomatous dermatitis.

A comprehensive diagnostic workup was performed. The results of syphilis serology showed a reactive Rapid Plasma Reagin test (RPR) with a value of 1:32, reactive Treponema pallidum particle agglutination test (TPPA) with a value of 1:20480, while anti-Treponema pallidum IgM antibodies with treponemal enzyme immunoassay (EIA) were negative.

A skin biopsy was performed for histopathological evaluation. Histopathology revealed psoriasiform hyperplasia of the epidermis, accompanied by a superficial and mid-deep perivascular lymphohistiocytic infiltrate containing numerous plasma cells. Immunohistochemical staining for *Treponema pallidum* revealed individual spirochetes.

Additionally, we obtained a thorough medical history and reviewed past serology results for syphilis, which had also been positive several years earlier. At that time, the patient received only one intramuscular injection of benzathine penicillin G (BPG) 2.4 million units for latent syphilis of unknown duration, since he did not present for further treatment or follow-up.

We decided to treat the patient with three intramuscular injections of BPG 2.4 million units administered weekly, as no serologic tests for syphilis were conducted in the past year. Following treatment, a complete resolution of the patient's rash was noted, and a twofold decrease in the antibody titre of both RPR and TPPA was observed at the three-month follow-up.

#### **Conclusion:**

This case highlights key challenges: atypical granulomatous-like presentation without mucosal and palmoplantar involvement, diagnostic complexity in HIV patients (who have higher rates of secondary syphilis), and histopathological pitfalls (plasma cells are pathognomonic but often overlooked). Despite rising syphilis rates in

Slovenia and worldwide, atypical presentations continue to be under-recognized. Granulomatous lesions can pose a significant diagnostic challenge, as they are an atypical manifestation of secondary syphilis.

Dermatovenereologists should maintain a high level of suspicion for syphilis in cases of granulomatous eruptions, particularly in high-risk populations, to ensure timely diagnosis and treatment.

## chemsex and the healthcare gap: are we ready to respond?

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# **Introduction & Objectives:**

Chemsex, defined as the intentional use of psychoactive substances to initiate, sustain, or enhance sexual activity, is a growing phenomenon with significant public health implications, particularly among men who have sex with men. The practice is associated with a wide range of clinical, psychological, and social consequences. While chemsex may fulfill certain sexual, emotional, or social needs, it is strongly linked to increased vulnerability to sexually transmitted infections (STIs), including HIV, substance use disorders, and mental health problems. Despite its rising prevalence, chemsex remains insufficiently addressed by healthcare systems worldwide. This review aims to synthesize the existing evidence on the prevalence, risks, and public health consequences of chemsex, identify critical gaps in care, and propose integrative responses from a harm reduction and biopsychosocial perspective. In addition, pharmacological mechanisms of the main substances used in chemsex settings are illustrated, emphasizing their psychoactive effects and risks.

# **Materials & Methods:**

A comprehensive review of the literature was conducted. The search terms "chemsex" and "sexualized drug use" were employed, in combination with "toxicology," "epidemiology", "risk factors", "public health", "pharmacology", "PrEP", and "HIV". The PubMed database was used for data extraction in March 2025. The inclusion criteria were original articles, systematic reviews, and meta-analyses published in the last five years. Titles and abstracts were screened to select studies relevant for inclusion.

## **Results:**

Findings indicate an association between chemsex and high-risk sexual practices, including condomless anal intercourse, multiple concurrent partners, which elevate the risk of HIV, and other STIs. Commonly used substances include methamphetamine, mephedrone, MDMA, GHB/GBL, ketamine and amyl nitrates. These agents exert their psychoactive effects primarily through dopaminergic, serotonergic, GABAergic, and glutamatergic pathways, enhancing libido, empathy, sensory perception, and disinhibition. However, they are also associated with adverse outcomes including acute intoxication, psychosis, cardiovascular complications, and fatal overdose. Interactions with antiretroviral therapies can potentiate drug toxicity or reduce therapeutic efficacy. Mental health disorders such as anxiety, depression are prevalent among users. Barriers to healthcare access include stigma, fear of discrimination, limited provider training, and poor coordination among sexual health, addiction, and mental health services. A lack of standardized definitions and consistent epidemiological data further hampers effective response planning.

#### **Conclusion:**

Chemsex poses a multidimensional challenge that extends beyond individual clinical care, intersecting with issues of public health, social care and criminal justice. Addressing this phenomenon requires an inclusive,

interdisciplinary, and culturally competent approach rooted in harm reduction and health equity. It is essential to strengthen provider education, create integrated models of care, and promote stigma-free environments to support affected individuals. Developing unified definitions, collecting locally relevant data, and building collaborative networks between healthcare, community, and policy sectors are critical steps toward reducing the harms of chemsex and improving outcomes for LGBTQIA+ populations.

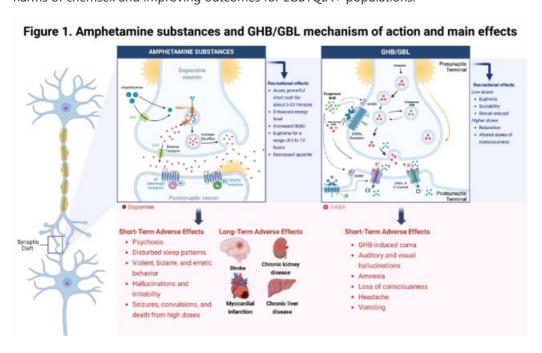


Figure 2. Amyl nitrates, ketamine and cannabis mechanism of action and main effects

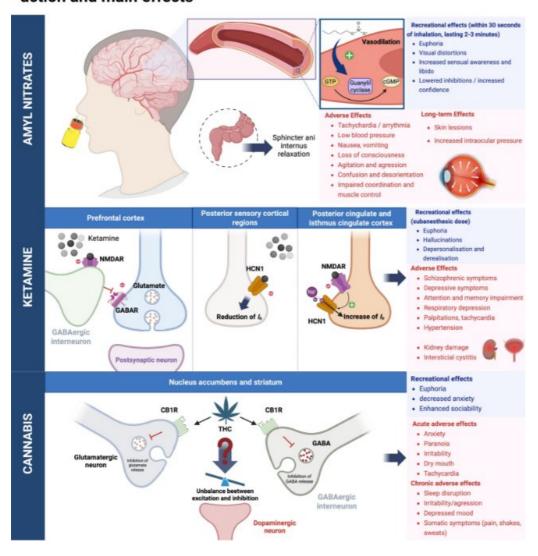


Figure 3. Factors influencing chemsex use at each level of the socio-ecological model.



# Doxycycline as an Alternative Treatment for Ocular Syphilis in a Penicillin-Allergic HIV-Positive Patient: A Case Report

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#### Introduction:

Syphilis is a chronic sexually transmitted infection caused by *Treponema pallidum*, with clinical presentations that vary widely depending on the stage of the disease. One of the less common but serious complications is ocular syphilis, which can affect any part of the eye and may occur at any stage of infection. If left untreated, it carries the risk of irreversible visual impairment. The diagnosis of ocular syphilis can be particularly challenging due to its diverse manifestations and frequent overlap with other ocular conditions. Moreover, co-infection with HIV may alter the clinical course and response to treatment, complicating management strategies. Penicillin remains the gold standard for syphilis treatment; however, in cases of penicillin allergy, alternative regimens must be considered. This report presents a case of a young male with HIV co-infection and penicillin allergy who developed ocular and cutaneous manifestations of secondary syphilis and was successfully treated with doxycycline.

#### Case:

A 19-year-old male was referred by an ophthalmologist to the dermatology clinic due to the presence of erythematous rashes on his arms and legs. The patient initially presented to the ophthalmology department with complaints of eye redness and progressive blurry vision, and was diagnosed with glaucoma, for which timolol and latanoprost eye drops were prescribed. Two weeks prior to the onset of ocular symptoms, the patient had developed cutaneous rashes that began on both hands and subsequently spread to the feet. Serologic testing for syphilis revealed a Venereal Disease Research Laboratory (VDRL) titer of 1:256 and a Treponema pallidum hemagglutination assay (TPHA) titer of 1:5120. The patient also tested positive for human immunodeficiency virus (HIV). Due to a documented allergy to penicillin, oral doxycycline 100 mg twice daily for 14 days was administered as an alternative treatment. Antiretroviral therapy was also initiated. After two weeks, both ocular and cutaneous symptoms began to resolve, and there was a notable decline in VDRL titers. At nearly three months follow-up, the patient's symptoms had significantly subsided, accompanied by a marked reduction in RPR titers.

## Conclusion:

Although ocular syphilis is relatively rare, it represents a significant clinical concern as it can manifest at any stage of syphilis and may result in irreversible vision loss if not promptly treated. In the present case, the patient was administered doxycycline as an alternative therapy due to a penicillin allergy, which led to notable clinical improvement and a reduction in VDRL titers. While the effectiveness of doxycycline in treating ocular syphilis among individuals with HIV/AIDS has not been extensively evaluated, this case suggests that such patients may respond favorably to this regimen. Consequently, doxycycline could be considered a viable treatment option for HIV-positive individuals with syphilis who are unable to receive penicillin. Nonetheless, further research is essential to establish evidence-based guidelines for its use in this specific population.

# Human Papillomavirus Genotyping in External Genital warts In Different Age Groups In Egyptian Patients

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# **Introduction & Objectives:**

Genital warts are common Human Papilloma Virus (HPV) infection .Some types of HPV are oncogenic. Vaccines are available against only few strains.

To assess the prevalence of HPV genotypes of external genital warts in the Egyptian children and adults of both sex, in attempt to find out the likely hood of genital warts being sexually transmitted or not, furthermore the most common HPV strains implicated in genital warts.

#### **Materials & Methods:**

120 Patient with external genital wart were included. The included subjects in this study was 60 children and 60 adults of external genital warts. Full general and dermatological examination was done. Biopsy was taken. It undergone DNA extraction and HPV detection and genotyping.

#### **Results:**

Our results showed that HPV 16 is the most common genotype among both children and adults, followed by HPV 6, 11,33,18,31 in children and but in adults HPV 31 preceded HPV 18.

## **Conclusion:**

The oncogenic HPV genotypes is common in all age groups in Egypt. This result necessitates the need for continues follow up among Egyptian patients with genital warts to avoid /prevent development of cancers.

## Dissemination of Chlamydial Infection in Sexually Acquired Reactive Arthritis

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# **Introduction & Objectives:**

Sexually acquired reactive arthritis (SARA) is a chronic disease prone to relapses, characterized by simultaneous chlamydial / mycoplasmal infection of the genitourinary system, inflammation of the joints, eyes, and often the skin, mucous membranes and internal organs. Many aspects of the pathogenesis of SARA remain unclear to date. The routes of spread of Chlamydia trachomatis from the genitourinary organs have not been fully studied, but recently there is increasing evidence in favor of hematogenous transmission of infection.

#### **Materials & Methods:**

20 patients with SARA (10 men and 10 women) with confirmed urogenital Chlamydia trachomatis infection were examined. The average age of the patients was 35.5 years. The average duration of joint syndrome in SARA in these patients was 33.8 months. No patients took antibacterial drugs for 6 months before the study. These patients underwent a study of C. trachomatis DNA using the PCR method of peripheral blood mononuclear cells.

## **Results:**

As a result, Chlamydia trachomatis DNA was detected in 8 of 20 patients (40%). All 8 patients had a chronic form of SARA with an average disease duration of 61.3 months. In all of them, the disease was in a state of relapse of both articular and urogenital syndromes. In the group of PCR-negative patients, more than 70% (7 people out of 12) were patients with an acute form of SARA with a disease duration of up to 6 months.

### **Conclusion:**

This study demonstrates the possibility of dissemination of chlamydial infection from the genitourinary system with macrophages/monocytes of peripheral blood to "predisposed" joints. Probably, in the acute form of SARA, the duration of dissemination of chlamydial infection from the genitourinary system is relatively short. It is also possible that the number of microorganisms in monocytes is also small, which makes it impossible to detect them using existing diagnostic methods. In the chronic form of SARA, during a relapse, it is likely that a significantly larger number of chlamydia are released into the peripheral blood from various foci of previous dissemination. This makes it possible to diagnose them in almost 100% of patients with these forms of SARA.

# Reemergence of Syphilis with Neurological Involvement: Report of Two Cases in the Context of Increasing Epidemiological Trends

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## **Introduction & Objectives:**

The rate of primary and secondary syphilis has increased exponentially in recent decades. We present two cases of neurosyphilis over the course of one year at a tertiary hospital in Spain.

#### **Materials & Methods:**

A 39-year-old woman was admitted to the Neurology Department for evaluation of unexplained blurred vision and dyschromatopsia, accompanied by generalized, erythematous-brownish papules, present for 12 days. Tests showed liver involvement and brain resonance was unremarkable. Skin biopsy revealed findings consistent with granulomatous syphilis. When asking, she reported unprotected sexual contact two months before. Additional testing confirmed ocular syphilis within secondary syphilis, with positive serology (RPR 1:16) and a negative VDRL result in cerebrospinal fluid (CSF). She received 24 million units/day of IV penicillin G for 14 days, with progressive visual improvement.

A 38-year-old woman with a stable partner was evaluated by the Otolaryngology Department for progressive left-sided deafness, associated with generalized erythematous-brown macules of 15 days' duration. After performing protocol study tests, serology for syphilis showed RPR titers of 1:32. Otosyphilis within secondary syphilis was confirmed and the patient was admitted to the Internal Medicine Department. CSF VDRL was not performed. Biopsy was not required. She was treated with a 14-day course of intravenous penicillin G, with persistent deafness as a sequela.

#### **Results:**

Syphilis is a sexually transmitted infection caused by *Treponema pallidum (TP)*. Over the past 20 years, the epidemiological trend in Europe has fluctuated, with a decline in cases until 2010, followed by a steady increase to the present. In the United States, the number of cases has risen sharply in both women and men over the same period. As a result, the incidence of neurosyphilis has also increased, although its exact prevalence remains unclear.

The clinical presentation of syphilis varies depending on the stage of infection. Primary syphilis typically occurs around three weeks after high-risk sexual contact and involves only the skin (chancre). Secondary syphilis appears 2–3 months after the initial lesion and includes systemic symptoms along with variable mucocutaneous manifestations. Tertiary syphilis, the late stage, may affect various unrelated organs such as the heart or bones.

**Neurosyphilis** refers to the spectrum of neurological manifestations caused by TP and can occur at any stage of infection. These include ocular syphilis (optic neuritis or anterior/posterior uveitis), and otosyphilis (sensorineural or conductive hearing loss).

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Diagnosis involves serological testing, including both non-treponemal (VDRL, RPR) and treponemal assays. When neurosyphilis is suspected, these tests can also be performed on cerebrospinal fluid (CSF), although they are not mandatory in ocular or otic syphilis due to a high false-negative rate (30%). Skin biopsies may reveal granulomatous infiltrates rich in plasma cells. The gold-standard treatment is intravenous penicillin G, administered at 18–24 million units per day via continuous infusion.

## **Conclusion:**

We report two cases of neurosyphilis—ocular and otic—within the context of secondary syphilis in two young women. These cases underscore the importance of considering neurosyphilis in the differential diagnosis of unexplained neurological symptoms in this age group, particularly given the increasing incidence of syphilis.



## Resistance-Guided Management of Mycoplasma genitalium: Experience from a Single-Center Study

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<sup>1</sup>University Hospital Bulovka, Dermatovenerology, Prague, Czech Republic

**Introduction & Objectives:** *Mycoplasma genitalium* (*M. genitalium*) is a sexually transmitted bacterium associated with non-gonococcal urethritis, cervicitis, and pelvic inflammatory disease. It represents a growing challenge due to its ability to develop resistance to multiple antibiotics. In Europe, macrolide resistance rates often exceed 50%, and fluoroquinolone resistance is also increasing. Rising resistance highlights the need for resistance-guided treatment. This study evaluates antibiotic resistance in *M. genitalium* and explores implications for clinical management.

**Materials & Methods:** A retrospective analysis was conducted on patients diagnosed with *M. genitalium* infection using nucleic acid amplification testing. Data were collected between February 2023 and March 2025. Clinical characteristics, sexual orientation, HIV status, presence of co-infections, localization of the infection, antibiotic resistance profiles, and treatment regimens were assessed. Resistance testing for macrolides and fluoroquinolones was performed using genotypic methods.

**Results:** Twenty-five patients were diagnosed with *M. genitalium* infection. The cohort was predominantly male (96%; n=24), with a single female patient (4%). The mean age was 37.2 years (median 36; range: 23–58). Sixteen patients (64%) identified as heterosexual and nine (36%) as men who have sex with men (MSM). Nineteen patients (76%) were HIV-negative, and six (24%) were people living with HIV. Co-infection with gonococcal infection was observed in two cases (8%). The most common site of infection was the urethra (92%; n=23). One infection (4%) was localized in the cervix and one (4%) in the rectum. Resistance testing was conducted in 19 cases. Macrolide resistance was found in 12 patients (63%), and fluoroquinolone resistance in four (21%); among these, three patients (16%) had dual resistance to both antibiotics. Treatment strategies were guided by resistance profiles. Eleven patients (44%) were treated with moxifloxacin monotherapy, six (24%) received doxycycline followed by moxifloxacin, three (12%) were treated with azithromycin alone, and another three (12%) received sequential doxycycline and azithromycin. One patient (4%) received doxycycline monotherapy, and one (4%) was treated with minocycline. With this individualized therapeutic strategy, clearance of infection was achieved in all patients.

**Conclusion:** This study highlights a high prevalence of macrolide resistance and an emerging trend of fluoroquinolone resistance in *M. genitalium* infections. These findings underscore the importance of resistance testing to guide effective antimicrobial therapy. Moxifloxacin remains a key treatment option, especially in resistant cases, often preceded by doxycycline to reduce bacterial load. Resistance-guided strategies are essential to optimize care and mitigate the spread of multidrug-resistant *M. genitalium*.

## Mpox infection mimicking primary herpes genitalis. First case from Azerbaijan

Mehdi Iskandarli<sup>1</sup>

<sup>1</sup>Kutanoz Klinika, Dermatology and Venereology, Baku, Azerbaijan

# **Introduction & Objectives:**

Mpox is an endemic zoonotic skin disease that was first time identified in Africa. Disease remained limited to Africa continent until the first outbreak in USA in 2003. At that time, whether in Africa or the USA the main modes of transmission were animal-to-human primarely affecting children. Human-to-human transmission was rare. However, since the 2022 outbreak of the mpox virus the epidemiology of the disease has changed. It began to spread predominantly among sexually active adults indicating the possibility of sexual transmission. So the current outbreak of mpox may mimic sexually transmitted infections (STIs), particularly primary herpes genitalis (PHG). Both conditions present with similar umbilicated vesicles and regional lymphadenopathy, often preceded by prodromal symptoms. Here, we present the first reported case of mpox infection in Azerbaijan that clinically resembled PHG.

#### Materials & Methods:

A 23-year-old male patient was referred to the dermatology unit with complaints of painful skin lesions in the genital region. The patient also reported palpable swellings in the groin. He had recently traveled abroad and involved in first coitus with suspicious partner. Skin examination revealed multiple umbilicated vesicles with necrotic centers located on the base of the penis. Lymphadenopathy detected as well. Prodrom signs were absent, although the patient reported low-grade fever while abroad. The rest of the skin and mucous membranes were intact. To rule out mpox infection, a polymerase chain reaction test was performed on sample taken from the lesions. The result returned positive for mpox virus. Other biochemical markers were normal

## **Results:**

Mpox caused by a viruses member of Poxviridae family. Other members of the family causes clinically similar diseases such as variola, molluscum contagiosum in which umbilicated lesions are main similarity. Herpesvirus related diseases such as varicella, herpes zoster, primary herpes genitalis (PHG) may also present with umbilicated vesicles. Thus, vesicular lesions may mimic a range of infectious dermatoses, especially STIs such as PHG and the current variant of mpox. In the present case, the preliminary diagnosis was PHG based on anamnesis and examinations. However, the patient's recent travel and the atypical appearance of the lesions prompted consideration of mpox infection.

There are two distinct variant of Mpox virus. Clad I and clad II. Mainly clade IIb, responsible for the current outbreak, showing bipolar (oral and genital) distribution of the lesions resembling herpes labialis and herpes genitalis. These areas serves as a primary inoculation sites. Primary inoculation lesions in clad IIb are solid, whitish pseudopustules with umbilicated necrotic centers on an erythematous base. These lesions often coalesce into single, multi-petaled, blossom-like structures, which differ significantly from PHG lesions. In PHG, primary genital lesions typically appear as grouped vesicles with umbilicated crusts. They rarely coalesce into a single lesion. Therefore, the morphology of primary inoculation lesions in PHG and mpox are distinctly different.

## **Conclusion:**

In summary, by presenting this case, we aim to highlight the mimicking nature of the current mpox outbreak. The presence of coalescing, solid pseudopustules forming a single umbilicated lesion, often resembling a multipetaled blossom, may serve as a unique diagnostic clue for mpox infection.

# Knowledge, awareness, and attitude amongst first year MBBS students about STIs other than HIV in a tertiary care hospital

Nagesh Tumkur Subba Rao<sup>1</sup>

<sup>1</sup>Sapthagiri Institute of Medical Sciences and Research Center, Dermatology, Bangalore, India

# **Introduction & Objectives:**

Sexually transmitted infections (STIs), pregnancies resulting from unprotected sexual activity have increased among adolescents and young adults. Ulcerative and non-ulcerative STIs enhance the transmission of HIV AIDS **2**. This study was conducted to assess the level of knowledge about the clinical features suggestive of STIs with special emphasis on non-HIV STIs.

#### **Materials & Methods:**

A cross sectional study was conducted among college students between the age group of 18-22 years. A total of 300 first year MBBS students were included in the study. A questionnaire was given to students and were only asked to mention their age and place. Based on the questionnaire knowledge, awareness and attitude of the students were assessed about other STIs apart from HIV

## **Results:**

A total of 300 first year medical students were administered the questionnaire, out of which were 167 males and 133 females. Most of the students had heard about sexually transmitted infections (STIs) and 260 students had heard about STIs other than HIV. 192 (64%) students knew that STI can be present in a person even without symptoms, 88 (29%) students didn't know if it was possible to have STIs without symptoms and 20 (7%) students mentioned that it was not possible to have STI without symptoms. The number of students knowing about different STI were HIV/AIDS (99.7 %), genital warts (93%), syphilis (77%), hepatitis B (69%), gonorrhea (66%), genital herpes (65%), chancroid (26%), LGV (25.8 %)\*\* respectively.

## KNOWLEDGE

## **Causative Factors:**

241 (80.3%) students mentioned virus to be the causative factor for STI followed by bacteria 152(50.6%) and fungi 26 (8.6%). 262 (87%) and 216 (72%) students considered multiple sexual partners and unprotected sex as predisposing factor for STI respectively.

#### Modes of transmission:

The main modes of transmission of STIs known by students included blood transfusion which almost 97% agreed upon, followed by sharing the infected needle (92%), not using condoms (91.9%), prostitution (90.5 %), mother to child transmission during childbirth (89%) and poor hygiene (85%).

# **Complications:**

Students thought infertility (54%) was the most common complication, followed by cervical cancer (47%) and abortion (44.6%). 55% of the students thought all the three complications were attributed to STI shown in **Table 6** 

## Attitude:

Only 51(17%) students felt masturbation to be harmful to health whereas 189 (58 %) students felt that masturbation was not harmful and around 60(20%) students were not sure. Majority of the students 240 (80%) agreed about the need for sex education in the schools and colleges. 90 (30%) students felt that emergency contraceptive pill can help prevent STIs.

Most of the students agreed upon the fact that there is no permanent cure for HIV/AIDS (66%).

## **Conclusion:**

The objective of the study was to assess knowledge, awareness, and attitude amongst 1st year MBBS students about various STIs other than HIV. In the study most of the students were aware about STIs other than HIV/AIDS.. Students had a good knowledge about the prevention and transmission of STIs.

. From the study it can be concluded that though students had a good knowledge about the other STIs, there was a lack of knowledge about the complications of the STI and there were certain misconceptions about the sexual practices.

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## Viral Hepatitis Prevention and Treatment among PrEP Users - a Retrospective Long-term Cohort Study

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# **Introduction & Objectives:**

Since August 2016, HIV pre-exposure prophylaxis (PrEP) has been approved in Germany. However, systematic data on long-term PrEP use, interruptions, and implications for hepatitis A–D (HAV, HBV, HCV, HDV) prevention remain limited. This study investigates hepatitis immunoprotection, new hepatitis infections, and related care within the context of PrEP provision.

#### **Materials & Methods:**

We analyzed data from 227 PrEP users attending our center between 08/2017 and 02/2025. Participants completed structured questionnaires on sociodemographic characteristics and sexual health behavior and underwent routine serological testing and STI screening. Study visits included a baseline assessment and 2–5 follow-ups. Hepatitis vaccination status, antibody levels, incident hepatitis infections, and subsequent treatments were evaluated. Sufficient HAV protection was defined as positive HAV antibodies. HBV protection was classified as insufficient (Anti-HBs <10 mIU/mL), low (10–100 mIU/mL), or sufficient (>100 mIU/mL).

## **Results:**

The median age at baseline was 36.7 years; 217 participants (95.6%) identified as MSM. Mean duration of PrEP intake at our center was 50.9 months, with 131 participants remaining on PrEP as of 28 February 2025. At baseline, 156 (68.7%) participants demonstrated sufficient HAV immunity, and 71 (31.3%) did not exhibit detectable antibodies. A total of 143 HAV vaccine doses were administered to 77 individuals. At their final visit, 211 (92.9%) demonstrated HAV protection; 12 (5.3%) remained unprotected; in 4 (1.8%) the immunological response was unassessable.

Regarding HBV, 58 participants (25.6%) demonstrated insufficient immunity at baseline, 35 (15.4%) had low immunity, and 134 (59.0%) were sufficiently protected. A total of 239 HBV vaccine doses (initial and boosters) were administered to 97 individuals. At the last follow-up, 172 (75.8%) achieved sufficient antibody levels; 29 (12.8%) demonstrated low and 23 (10.1%) insufficient immunity. For 3 individuals (1.3%), no follow-up testing was available.

During PrEP follow-up, three patients were diagnosed with HCV (two genotype 1a, one genotype 4) and were treated with Ledipasvir/ Sofosbuvir or Glecaprevir/ Pibrentasvir. One of them experienced reinfection and was treated again with Glecaprevir/ Pibrentasvir.

One patient was diagnosed with chronic hepatitis B and was closely monitored during PrEP intake.

No HAV or HDV infections were detected.

## **Conclusion:**

Routine hepatitis vaccinations within PrEP care substantially increased immunity rates:

HAV immunity rates rose from 68.7% at baseline to 92.9% on their last visit.

The proportion of participants with insufficient or low HBV immunity decreased from 41.0% at baseline to 22.9% at the last PrEP visit.

Vaccination uptake among PrEP users was high; however, a subset of participants did not achieve sufficient immunity by their final visit. These findings underscore the need for regular antibody monitoring, timely booster vaccinations, and intensified immunization strategies for low or non-responders.

Furthermore, PrEP care enabled timely hepatitis diagnosis, monitoring and treatment, demonstrating that PrEP provision and associated follow-up appointments serve as an effective linkage to hepatitis care.



# Retrospective Evaluation of Biologic Theraphies in HIV-infected Patients with Psoriasis: A Case Series and Review of Literature

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<sup>1</sup>T.C. Sağlık Bakanlığı Buca Seyfi Demirsoy Eğitim ve Araştırma Hastanesi, DERMATOLOGY, İzmir, Türkiye

**Introduction & Objectives:** The treatment of psoriasis in HIV-positive patients presents significant clinical challenges. Psoriasis in these individuals tends to be more severe, progressive, and may demonstrate suboptimal responses to standard first- and second-line therapies. Systemic agents such as methotrexate and cyclosporine require cautious use due to their immunosuppressive effects in immunocompromised HIV-positive patients. In recent years, biologic agents have revolutionized the management of moderate-to-severe psoriasis by providing targeted therapeutic options. However, data regarding the safety and efficacy of biologic agents in HIV-positive individuals remain limited. This study aims to present the clinical course of HIV-positive psoriasis patients managed with biologic therapy in our clinic and to summarize reported cases of biologic-treated HIV-positive psoriasis patients in the dermatology literature.

**Materials & Methods:** Medical records of psoriasis patients treated with biologic agents in our hospital were retrospectively screened for serological markers of HIV infection (anti-HIV). Four HIV-positive patients were identified and included in the study. Additionally, a comprehensive literature search was conducted in the PubMed database for articles published before March 2025 using the search terms: 'HIV' and 'psoriasis' or 'biologic' or 'infliximab' or 'adalimumab' or 'etanercept' or 'ustekinumab' or 'ixekizumab' or 'secukinumab' or 'brodalumab' or 'guselkumab' or 'certolizumab pegol' or 'tildrakizumab' or 'risankizumab' or 'apremilast' or 'bimekizumab.' For patients included in the study, data regarding age, sex, previous treatments, PASI scores, comorbidities, antiviral therapy, viral load, CD4 levels and adverse events were documented.

**Results:** A total of 83 HIV-positive psoriasis patients treated with biologic agents have been reported in 41 studies in the existing literature. In this study, we present an additional four novel cases from our clinic treated with IL-17 inhibitors. In both our cases and those reported in the literature, CD4 cell counts remained stable or increased under consistent HAART (highly active antiretroviral therapy), while HIV viral loads either decreased or remained stable. Serious adverse effects were rare, and most treatment-related adverse events were manageable without the need for therapy discontinuation.

**Conclusion:** Our study is significant as it provides the most comprehensive literature review to date regarding biologic therapy use in HIV-positive psoriasis patients and includes 4 case reports of IL-17 inhibitors. Considering the available case reports in the literature and our own clinical cases, biologic therapies appear to be effective and safe under close monitoring in psoriasis cases resistant to conventional systemic agents in HIV-positive individuals. However, further studies are needed to establish robust evidence regarding the long-term efficacy and safety of biologic agents in this patient population.

## Unmasking Syphilitic Alopecia in a Patient Initially Diagnosed with Androgenetic Alopecia: A Case Report

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# **Introduction & Objectives:**

Androgenetic alopecia (AGA) is the most common cause of hair loss in both men and women. However, secondary causes of alopecia, such as syphilitic alopecia, must be considered, particularly in cases that do not respond to standard therapies. Syphilitic alopecia is a manifestation of secondary syphilis and can clinically mimic AGA or alopecia areata, often leading to misdiagnosis and treatment delay.

#### **Materials & Methods:**

We report the case of a 28-year-old male who presented with diffuse hair thinning over the vertex and frontal scalp, consistent with AGA. The patient was started on topical minoxidil 5% and oral Finasteride with no improvement after one year. A more detailed history revealed high-risk sexual behavior, prompting further evaluation. Serologic testing showed a reactive rapid plasma reagin (RPR) test with a titer of 1:64, confirming secondary syphilis. The patient was treated with a single intramuscular dose of benzathine penicillin G (2.4 million units). Notable hair regrowth was observed within 8 weeks, supporting a diagnosis of syphilitic alopecia.

#### **Results:**

This case underscores the importance of maintaining a high index of suspicion for syphilitic alopecia in patients with atypical or treatment-refractory hair loss. Syphilitic alopecia is often described in two patterns: moth-eaten which is the most common and diffuse, the latter resembling AGA. Early diagnosis and antibiotic therapy are critical for complete hair regrowth and prevention of systemic complications. Dermatologists should consider syphilis serology in the diagnostic workup of non-responsive alopecia cases.

#### **Conclusion:**

This case highlights the diagnostic challenge of differentiating AGA from syphilitic alopecia. Routine screening for sexually transmitted infections should be considered in alopecia cases unresponsive to standard treatment, especially among high-risk individuals.

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## The most common sexually transmitted diseases in Latvia

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**Introduction & Objectives:** to study and characterize the incidence of reported sexually transmitted diseases (STD) in Latvia: syphilis, gonorrhoea, urogenital chlamydiosis from 2018 till 2023.

**Materials & Methods:** Data from the state agency for disease control and prevention was used and studied from 2018-2023 for syphilis, gonorrhoea, and chlamydia. The incidence per 100 000 was analysed.

**Results:** Syphilis incidence from 2018-2023 was 7.1, 4.0, 3.1, 2.8, 2.5, 3.2 correspondingly. The average syphilis incidence from 2018-2023 was 3.78 per 100 000. One case of congenital syphilis was registered in 2018 – incidence 5.2 per all live births. The incidence of gonorrhoea from 2018-2023 was 8.8, 6.7, 3.5, 4.8, 8.8, 8.0 correspondingly. The average incidence of gonorrhoea in this period was 6.76 per 100 000. The incidence of chlamydia from 2018-2023 was 67.5, 65.1, 43.4, 61.8, 59.4, 64.0 correspondingly. The average incidence of chlamydia was 60.2 in this period.

**Conclusion:** Urogenital chlamydiosis was the most common STD in Latvia from 2018 till 2023, followed by gonorrhoea.

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# A case of secondary syphilis with atypical presentation

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# **Introduction & Objectives:**

- Syphilis is a chronic, systemic infectious disease caused by Treponema Pallidum involving multiorgan system.
- Classified into primary syphilis, secondary syphilis, latent and tertiary syphilis.
- Secondary syphilis usually develops 6-8 weeks after appearance of primary chancre with widespread symmetrical generalized eruption of papular, lichenoid, follicular varieties and not vesicular or bullous cutaneous manifestation.

## **Materials & Methods:**

Case history-

A 40 year old male presents with-

- Tense bullae over dorsum aspect of bilateral foot since 2 days.
- Associated with serous fluid discharge from ruptured bullae since 1 day.
- Erythematous rash over trunk, chest and back since 8days.
- Patient denied any history of exposure.
- Past h/o chronic eczema over bilateral lower limbs since 8-9 months.

Patient gave consent for thorough check up and investigations-

Clinical findings-

- Single tense bulla of 6x5cm in size over dorsum aspect of right foot.
- Single tense bulla of size 6x4cm on dorsal aspect of left foot and ruptured bulla with serous discharge over heel of left foot.
- Widespread erythematous maculopapular rash, symmetrically distributed following lines of cleavage on trunk, chest and back.
- Multiple hyperpigmented hyperkeratotic plaques over anterior aspect of bilateral legs.

Investigations-

**VDRL-** Inconclusive

**RDT-** Positive

TPHA-Positive

# Results:

Following the above clinical findings and investigations our provisional diagnosis is secondary syphilis

## **Conclusion:**

- Secondary Syphilis is diagnostically challenging because of its diverse dermatologic presentations, which can mimic other diseases.
- Our patient presented with bullae illustrates an additional variant of syphilis that closely simulates bullous disorder
- Clinicians should be aware of the varied manifestations of secondary syphilis
- Only a few cases of bullous presentation of Secondary Syphilis have been noted in the world.

## Evaluation of Non-Invasive Markers for Diagnosing Biopsy-Proven High-Grade Anal Dysplasia

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# **Introduction & Objectives:**

More than 90% of anal cancers are caused by high-risk (HR) human papillomavirus (HPV)-types. The highest burden of anal cancers is observed among people living with HIV. Particularly men who have sex with men (MSM) experience an up to 100-fold increased risk for anal cancer. Since 2024, international guidelines recommend screening and consecutive treatment of anal cancer precursor lesions, i.e. high-grade squamous intraepithelial lesions (HSIL), for populations at increased risk. The gold standard for diagnosing HSIL is biopsy/histology (hHSIL), which is obtained during high-resolution anoscopy (HRA). However, the capacity for HRA is very limited in most countries, and thus, sufficient non-invasive diagnostics via anal swab sampling are warranted. We, therefore, initiated 2023 a diagnostic accuracy study to investigate established (anal cytology, HR-HPV) and experimental (oncogenic E6/E7-mRNA expression, host-cell methylation markers) non-invasive markers for hHSIL.

#### **Materials & Methods:**

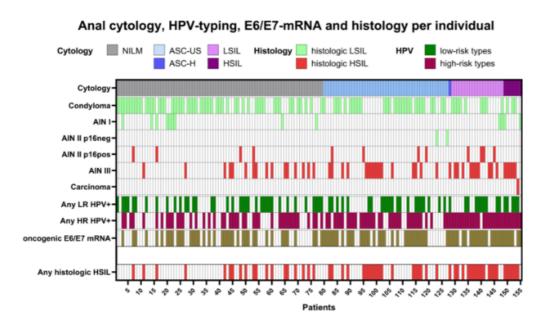
MSM with HIV undergoing HRA were included. Before HRA, anal swabs were obtained for cytology and non-invasive markers. Abnormal findings during HRA were biopsied for histologic evaluation. In this abstract, we present preliminary data on the diagnostic performance of cytology, HPV-typing and oncogenic E6/E7-mRNA expression for hHSIL. Analyses on host-cell methylation markers (ASCL1 and ZNF582) are currently in progress and will also be presented at the congress. This project is supported by the EADV project proposal program (PPRC-2023-0054) and by the German National Reference Center for Papilloma- and Polyomaviruses (Grant-No. 1369-401).

## **Results:**

Among 238 biopsies obtained from 155 individuals, 31% (74/238) hHSIL were diagnosed in 38% (59/155) of patients. The cytology cut-off for abnormal findings at 'ASC-US' (atypical cells of undetermined significance) achieved a sensitivity of 67.8% and a specificity of 62.5% for hHSIL. HR-HPV-typing and oncogenic E6/E7-mRNA expression demonstrated a sensitivity and specificity of 86.4% and 46.9%, and 87.3% and 49.4%, respectively. The composite analysis of ASC-US (or worse) + HR-HPV + E6/E7-mRNA improved specificity (93.3%) but decreased sensitivity (30.9%).

### **Conclusion:**

Established non-invasive tests (cytology and/or HR-HPV) yielded unsatisfactory diagnostic accuracy for anal precancers in this highly-burdened population. The best sensitivity for diagnosing hHSIL was achieved by the oncogenic E6/E7-mRNA marker alone. Combining cytology + HR-HPV + E6/E7-mRNA was highly specific, yet sensitivity was dramatically compromised. Analyses on the methylation markers ASCL1 and ZNF582 are currently in progress and will be presented at the conference. The addition of these experimental markers may improve non-invasive diagnostics for anal pre-cancers.



Abbreciations: AIN, anal intraepithelial neoplasia; ASC-H, atypical squamous cells, cannot exclude HSIL, ASC-US, atypical squamous cells of undetermined significance; HPV, human papillomavirus; HR-HPV, high-risk HPV; HSIL, high-grade squamous intraepithelial lesion; LSIL, low-grade squamous intraepithelial lesion; NILM, negative for intraepithelial lesion or malignancy.

## Unveiling Mpox in a High-Risk Male Presenting with Perianal Ulceration and Fistula

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## **Introduction & Objectives:**

Mpox is a zoonotic viral infection caused by the monkeypox virus. Recent outbreaks have seen increased human-to-human transmission, particularly among high-risk groups such as men who have sex with men (MSM). The clinical manifestations of Mpox can vary widely, ranging from systemic flu-like symptoms to localized or disseminated mucocutaneous lesions. In certain cases, especially when involving the anogenital region, Mpox may mimic more common anorectal pathologies including herpes simplex virus (HSV) infection, fistula-in-ano, or even inflammatory bowel disease (IBD), among others, making diagnosis particularly challengin. Hence, a high index of clinical suspicion should be maintained even in patients without a recent travel history or those who deny engaging in high-risk or multiple sexual partnerships.

#### **Materials & Methods:**

A 33-year-old male presented with a 10-day history of progressive perianal pain, tenesmus, hematochezia, and multiple whitish ulcers in the perianal region. He reported a history of unprotected receptive anal intercourse with a male partner. The patient was initially managed as a case of perianal abscess, for which a magnetic resonance imaging (MRI) of the lower abdomen was performed. He was subsequently referred to dermatology, where physical examination revealed multiple well-defined ulcers with erythematous bases and minimal whitish discharge in the perianal area, along with a few scattered pustules on the gluteal, flank, and inner thigh regions. A polymerase chain reaction (RT-PCR) test for Mpox, along with additional laboratory investigations, was requested for further evaluation.

## **Results:**

MRI findings were consistent with the presence of anal fistulas and suggested features of possible proctitis. Laboratory investigations revealed leukocytosis with neutrophilic predominance and elevated C-reactive protein (CRP) levels. Serologic tests for HSV and syphilis were negative. Mpox infection was confirmed via RT-PCR performed on swabs obtained from the lesions. The patient was managed with intravenous ampicillin-sulbactam, topical fusidic acid cream, appropriate analgesics, and placed under strict isolation precautions. Following clinical improvement and stabilization, he was discharged with oral antibiotics and analgesics, and instructed to maintain home isolation for 21 days. No new lesions developed post-discharge, and hematochezia had resolved.

**Conclusion:** \*\* This case underscores the importance of maintaining a high index of suspicion for Mpox in patients presenting with perianal ulcerations, particularly when overlapping anorectal conditions such as fistula-inano or abscesses are present. The clinical similarity between Mpox and other infectious or inflammatory diseases—including HSV, syphilis, and inflammatory bowel disease—can obscure diagnosis, emphasizing the need for a comprehensive approach involving detailed history, serologic screening, imaging, and confirmatory molecular testing. As community transmission continues to rise, especially among high-risk populations, clinicians must consider Mpox in the differential diagnosis regardless of self-reported risk behaviors. Heightened clinical awareness, combined with timely diagnosis and coordinated public health efforts, remains essential in managing and containing this re-emerging viral infection.

#### Case Series of Intraurethral Warts: A Rare Presentation of Genital HPV Infection

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**Introduction & Objectives:** Genital wart, caused by human papillomavirus (HPV), is considered to be the most common sexually transmitted disease. Isolated urethral wart is encountered in 0.5%–5% of men with genital warts.\*\* Intraurethral warts, caused by HPV infection, are rare and pose diagnostic and therapeutic challenges due to their location and potential for recurrence. Few cases have been reported in the literature, often manifesting with symptoms such as dysuria, urethral discharge, and discomfort. This case series aims to elucidate the clinical presentation, diagnostic modalities, treatment strategies for patients with intraurethral warts.

Materials & Methods: Not Applicable

**Results:** Case synopsis:

Case 1: A 27 year old, bisexual male presented with complaints of dysuria and intermittent urethral discomfort for 3 months. Physical examination revealed urethral erythema and papillomatous growths along the anterior urethra. He was diagnosed with intra-meatal urethral wart and treated with radiofrequency ablation, after ruling out proximal urethral extension through urethroscopy.

Case 2:\*\* A 20 year old, sexually promiscuous heterosexual male presented with pink lesions at the tip of his penis of 2 months duration. On pressing apart the urethral meatal lips, multiple small papillary masses were seen emerging from the urethral meatus. He was treated using a combination of radiofrequency ablation and 100% TCA application.

Case 3:\*\* A 28 year old, homosexual male with multiple sexual partners presented with a complaint of dysuria and observed growth inside the urethra for the past 4 weeks. Initially, he noticed discomfort during urination, accompanied by occasional urethral discharge. Over time, he became aware of a small, painless growth within the urethra that gradually increased in size. Upon examination, a cauliflower-like growth was visualized at the distal urethra, extending proximally. The growth was approximately 1 cm in diameter and was associated with mild erythema of the surrounding mucosa. He was treated using radio-frequency ablation.

**Conclusion:** Intraurethral warts are a rare manifestation of HPV infection, often challenging clinicians due to their location and associated symptoms. Diagnosis requires a high index of suspicion and may necessitate urethroscopy for visualization. Treatment modalities vary and should be tailored to individual patient factors and lesion characteristics to optimize outcomes. Long-term follow-up is crucial due to the potential for recurrence and the risk of HPV-associated complications.

# Coexistence of Atopic Dermatitis and Psoriasis in an Untreated HIV-Positive Patient: A Rare Immunological Intersection

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# **Introduction & Objectives:**

Co-manifestation of atopic dermatitis (AD) and psoriasis (Pso) in a single patient is exceedingly rare due to their opposing immunological profiles (Th2 vs. Th1/Th17). We report a unique case of an untreated HIV-positive patient presenting with concurrent clinical and histopathological features of both conditions, aiming to highlight the immunological dysregulation seen in HIV and its potential role in such dual expression.

#### **Materials & Methods:**

A 41-year-old man with newly diagnosed HIV (CD4+ count: 152) presented with 8 months of generalized pruritus and erythematous plaques. Physical examination revealed lichenified plaques on the face and arms. Erythematous scaly plaques on the trunk, thighs, and gluteal folds were noted. Due to the marked clinical variations of morphologies, two skin punch biopsies were obtained. Histopathology confirmed the diagnosis of AD and Pso, from the left arm and left thigh, respectively. Initial topical therapies failed; ART was initiated along with sulfamethoxazole-trimethoprim for prophylaxis.

## **Results:**

Six weeks after ART initiation, the patient showed marked resolution of both atopic and psoriatic lesions, with significant reduction in pruritus and no need for systemic immunosuppression. Histological correlation confirmed spongiotic dermatitis (AD) and psoriasiform hyperplasia (Pso) in distinct biopsies. This rapid improvement post-ART suggests immune restoration contributed to dermatologic remission.

#### **Conclusion:**

This is the first reported case of histologically confirmed atopic dermatitis and psoriasis coexisting in an untreated HIV-positive patient, with resolution following ART. It underscores the immune axis distortion in HIV and its reversal with treatment. The case demonstrates how immune restoration alone may lead to dramatic dermatologic improvement, even without systemic immunosuppression.

"Epidemiological Patterns in STI Clinic Attendees: A Yearlong Analysis from the DSRCs of a Tertiary Health Centre"

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# **Introduction & Objectives:**

Designated STI/RTI Clinics (DSRCs) are key components of our country's national STI surveillance system. These clinics collect routine data on syndromic diagnoses, lab testing, and co-infections, including HIV and syphilis. The monthly DSRC line list supports tracking epidemiological trends, informing public health actions, and evaluating integrated STI/HIV services. This analysis aimed to assess syndromic patterns, gender distribution, syphilis seropositivity (VDRL), antenatal screening outcomes, and HIV-syphilis co-infections using data from April 2024 to April 2025.

#### **Materials & Methods:**

Data were extracted from DSRC reports for April 2024–April 2025. Variables included gender-wise clinic attendance, syndromic classification (as per NACO guidelines), VDRL test results, ANC screening outcomes, and HIV co-infection data. Data were cleaned and summarised using descriptive statistics. Syndromes were categorized as per NACO guidelines: vaginal/cervical discharge (VCD), urethral discharge (UD), genital ulcer disease—herpetic and non-herpetic (GUD-H, GUD-NH), lower abdominal pain (LAP), painful scrotal swelling (SS), inguinal bubo (IB), ano-rectal discharge (ARD), genital warts (GW), and other STIs.

**Results:** A total of 1,050 new patients attended the DSRCs between April 2024 and April 2025—533 males and 517 females—yielding a male-to-female ratio of 1.03, indicating relatively balanced access to care. The overall syndromic distribution revealed that vaginal/cervical discharge was the most common syndrome, with 629 cases reported, followed by lower abdominal pain (145), urethral discharge (73), and painful scrotal swelling (57). Less frequent presentations included genital ulcer disease—non-herpetic (5) and herpetic (3), while no cases of anorectal discharge or inguinal bubo were recorded. Additionally, 74 cases were categorised under "Other STIs."

In terms of laboratory-confirmed syphilis cases, a total of 29 individuals were VDRL-reactive during the reporting period. In April alone, 13 individuals tested positive (11 males and 2 females), suggesting a higher prevalence among male attendees. Among antenatal care (ANC) attendees screened for syphilis in April, 3 women were found VDRL-reactive, highlighting the ongoing burden of maternal syphilis and the need for early detection and treatment to prevent congenital transmission. Notably, all 3 people living with HIV (PLHIV) who attended the clinic in April were also co-infected with syphilis, reflecting a 100% co-infection rate among this subgroup. This underscores the importance of routine syphilis testing as part of HIV care protocols.

#### Conclusion:

This review of the DSRC data highlights vaginal/cervical discharge and lower abdominal pain as the most prevalent STI syndromes among clinic attendees. A nearly equal male-to-female attendance pattern suggests encouraging trends in gender-inclusive service utilisation. The detection of syphilis among both ANC clients and PLHIV reiterates the critical need for integrated STI-HIV surveillance, early screening, and timely treatment interventions to reduce long-term complications and transmission. Continued analysis of DSRC data is essential to

monitor evolving trends and strengthen STI control strategies across diverse populations.

# The efficacy and safety of topical imiquimod in Vietnamese patients with perianal warts: a single-arm clinical trial

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## **Introduction & Objectives:**

Perianal warts caused by Human Papillomavirus (HPV) are a common sexually transmitted infection (STI) that significantly affects patients' physical and mental health. In Vietnam, limited sexual health education contributes to the increasing prevalence of HPV and complicates the management of perianal warts. Although multiple treatment options exist, the efficacy of topical imiquimod in the Vietnamese population remains underexplored. This study aimed to evaluate the efficacy and safety of 5% imiquimod cream in the treatment of perianal warts among Vietnamese patients.

## Materials & Methods:

This single-arm, open-label clinical trial enrolled 70 patients aged 16 years and older diagnosed with perianal warts at the National Hospital of Dermatology and Venereology (Hanoi, Vietnam) between August 2021 and June 2023. Patients applied 5% imiquimod cream three times per week and were evaluated biweekly. Treatment outcomes were categorized as no response, partial lesion clearance, or complete lesion clearance. Patients achieving complete clearance were followed for 8 weeks; recurrence was defined as the appearance of new lesions.

#### **Results:**

Men who have sex with men (MSM) constituted 61% of the cohort, and 16.7% were HIV-positive. HIV infection was significantly associated with greater disease severity and reduced response to treatment. Complete lesion clearance was achieved in 80.0% of patients at 8 weeks and 81.4% at 16 weeks. Recurrence occurred in 8.8% of cases during follow-up. Adverse events were reported in 88.6% of patients, most commonly pruritus and erythema, predominantly within the first month and diminishing thereafter.

#### **Conclusion:**

Topical imiquimod 5% demonstrated favorable efficacy and safety in the treatment of perianal warts in Vietnamese patients. HIV infection was associated with reduced treatment response. These findings support the use of imiquimod as a viable first-line therapy in this population and underscore the need for tailored approaches in immunocompromised patients.

Atypical Molluscum Contagiosum: A Diagnostic Challenge at the Nipple

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Atypical Molluscum Contagiosum: A Diagnostic Challenge at the Nipple

# **Introduction & Objectives:**

Molluscum contagiosum usually present over the face, trunk in children and In adults, it presents over genitals as sexually-transmitted disease and can have generalised involvement or presence at atypical sites in immunocompromised individuals.\*\* It can spread through skin-to-skin or sexual contact or sharing of fomites. Its occurance at atypical or unusual site can pose a diagnostic challenge. Here we report a case of molluscum contagiosum at nipple areolar complex in an immunocompetent female.

Materials & Methods: Not Applicable

#### **Results:**

A 21-year-old unmarried female presented to the out-patient department with complaints of asymptomatic corn sized swellings over left breast for 2 months. On examination, there were three skin-colored soft to firm, non compressible, non tender, papules with superficial erosion and crusting present at the left Nipple-areolar complex (NAC). No breast lump or regional lymphadenopathy was noted and there were no similar lesions elsewhere on the body. A skin biopsy and hormonal profile was done with differential diagnosis of erosive adenomatosis of nipple, nodular hidradenoma, paget's disease or any other benign adnexal tumor. The hormonal profile was normal. Surprisingly, her histopathology revealed cup shaped inverted lobules of hyperplastic squamous epithelium expanding into dermis with keratinocytes containing large intracytoplasmic eosinophilic inclusion bodies diagnostic of molluscum contagiosum. No atypical or malignant changes were observed. She had no derangement of immunological status. Later on these lesions were removed by needle extraction and radiofrequency ablation.

#### **Conclusion:**

This case highlights the presence of a common sexually transmitted infection, molluscum contagiosum, at an atypical site. A thorough clinical examination, coupled with histopathological confirmation, is crucial for accurate diagnosis and appropriate management.

Syphilis, the Great Imitator: Secondary Syphilis with Widespread Atypical Pigmented Cutaneous Lesions

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Syphilis, the Great Imitator: Secondary Syphilis with Widespread Atypical Pigmented Cutaneous Lesions

# **Introduction & Objectives:**

Syphilis, known as "the great imitator," can present with highly variable and nonspecific cutaneous manifestations, complicating diagnosis. This case highlights the importance of comprehensive physical examination in diagnosing atypically presenting secondary syphilis.

#### **Materials & Methods:**

A 48-year-old male presented with a one-month history of multiple, asymptomatic, dark-colored lesions on the face. Dermatological examination revealed numerous livid to grayish macules, papules, and plaques scattered on the face. Due to the nonspecific nature of these lesions and lack of suggestive history, a complete mucocutaneous examination was conducted, revealing similar lesions on bilateral palmoplantar regions and a few lesions on the trunk. Genital examination showed multiple erosive and clean-based ulcerations. Oral mucosa was normal. A detailed sexual history revealed multiple unprotected sexual encounters.

#### **Results:**

Serological tests showed VDRL positivity at a titer of 1:32, and TPHA positivity, confirming secondary syphilis. Considering the uncertain duration of infection, the patient was treated as latent syphilis with benzathine penicillin G (2.4 million IU, intramuscularly) administered weekly for three weeks. Follow-up examinations showed complete resolution of all lesions and negative VDRL titers.

#### **Conclusion:**

This case emphasizes the critical role of thorough mucocutaneous examination and a high index of suspicion in diagnosing syphilis, especially in atypical presentations. Syphilis should always be considered in the differential diagnosis of diffuse, nonspecific, pigmented skin lesions.

## New prevention tools for bacterial STI infections: options, pros and cons

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# **Introduction & Objectives:**

The global incidence of bacterial sexually transmitted infections (STIs) remains alarmingly high, with chlamydia (CHL), gonorrhoea\* (NGO), and syphilis (SY) accounting for over 200 million new cases annually. In response, doxycycline post-exposure prophylaxis (Doxy-PEP) has recently emerged as a promising candidate to reduce STI acquisition, primarily among high-risk men who have sex with men (MSM) and transgender women (TGW). In parallel, meningococcal outer membrane vesicle (OMV) vaccines, such as the MenB-4C, show cross-protection against NGO due to high genomic homology with *Neisseria meningitidis*.

#### **Materials & Methods:**

We conducted two meta-analyses and systematic reviews to evaluate emerging prevention strategies for bacterial STIs. First, we assessed the effectiveness of doxy-PEP in reducing the incidence of SY, CHL, and NGO and examined potential limitations such as adverse events, co-infections, and concerns about antimicrobial resistance (AMR). Then we focused on the vaccine effectiveness (VE) of OMV meningococcal vaccines against NGO. In both meta-analyses, systematic searches were conducted in major databases. Random-effects models were applied to estimate pooled effect sizes, and risk of bias and certainty of evidence were assessed according to the recommendations of the Cochrane Collaboration.

#### **Results:**

Doxy-PEP significantly decreased the incidence of SY and CHL among high-risk MSM and TGW, demonstrating a 77% reduction for SY (RR = 0.23, 95% CI: 0.14–0.36) and an 81% reduction for CHL (RR = 0.19, 95% CI: 0.08–0.44). Moderate efficacy was also observed against NGO (RR = 0.55, 95% CI: 0.34–0.87). Doxy-PEP proved to be safe, with serious side effects being very rare. Offering Doxy-PEP only to people living with HIV or those taking HIV-PrEP helps minimise the risk of HIV infection, while regular STI screening remains essential due to its ineffectiveness against viral and fungal infections. Tetracycline resistance development in CHL and SY is still largely hypothetical, but high resistance rates already exist in NGO, and further resistance could emerge. There is also a risk of bystander AMR selection in other pathogens, such as mycoplasmas. The MenB-4C OMV vaccine has demonstrated a VE of 41% (OR = 0.59; 95% CI: 0.46-0.76) against NGO, with protection waning after 2–3 years. Complete vaccination offers 24% greater protection compared to partial vaccination (OR=0.76; 95% CI: 0.31-1.85). Modelling studies suggest that targeted OMV vaccination campaigns could substantially reduce NGO cases in core populations.

#### **Conclusion:**

Doxy-PEP is a promising STI prevention tool for high-risk MSM and TGW populations, particularly effective for SY and CHL. While antimicrobial resistance (AMR) remains a concern, ongoing surveillance is essential as the long-term utility of doxy-PEP depends on resistance emergence and population-level impact. OMV vaccines, particularly the MenB-4C vaccine, offer moderate protection against NGO and may complement doxy-PEP

strategies.



When Therapy Backfires: Genital Warts Exacerbation During Photodynamic Treatment of Lichen Sclerosus-A Case Report

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**Introduction & Objectives:** Genital human papillomavirus (HPV) infection is one of the most common sexually transmitted diseases, causing benign lesions (genital warts), pre-cancerous lesions (e.g., bowenoid papulosis, Bowen's disease, erythroplasia of Queyrat), and malignant lesions, including cervical and external genital cancers. It is estimated that up to 80% of sexually active individuals will contract HPV at some point in their lives, with genital warts affecting approximately 1% of this population. Lichen sclerosus (LS) is a chronic, recurrent, non-infectious inflammatory dermatosis that predominantly affects the anogenital region. Although its etiology remains unclear, genetic, infectious, environmental, autoimmune, and hormonal factors are implicated. Long-term monitoring is essential due to the risk of malignant transformation. First-line treatment involves superpotent topical corticosteroids. However, prolonged use may predispose patients to secondary infections, including HPV, making the co-occurrence of LS and genital warts a therapeutic challenge.

**Materials & Methods:** We present the case of a patient with anogenital lichen sclerosus who had been undergoing treatment with superpotent topical corticosteroids and subsequently developed genital warts. The therapeutic strategy included photodynamic therapy (PDT).

**Results:** Following two sessions of photodynamic therapy, we observed near-complete remission of lichen sclerosus. However, a dramatic exacerbation of genital warts occurred, ultimately requiring surgical excision.

**Conclusion:** Literature reports the prevalence of HPV infection in patients with lichen sclerosus to range from 1% to 21%. Chronic use of potent topical corticosteroids may increase susceptibility to HPV infection in this population. While photodynamic therapy is cited as a promising treatment for both lichen sclerosus and genital warts, in our case it led to an excellent response in LS but provoked a severe flare-up of genital warts. This underscores the need for careful patient selection and close monitoring during PDT in cases of coexisting LS and HPV infection.

# Secondary Syphilis Mimicking Erythema Multiforme: A Rare Case Report

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# Secondary Syphilis Mimicking Erythema Multiforme: A Rare Case Report

# **Introduction & Objectives:**

Syphilis is a chronic infectious sexually transmitted disease (STD), caused by the spirochete Treponema Pallidum. The hallmark of the first stage of syphilis is a single, painless ulcer (chancre) at the mucosal or cutaneous site of direct contact with an infectious lesion. After 2-24 weeks of the resolution of primary syphilis, secondary syphilis manifests as a mucocutaneous rash on the trunk, palms, and soles; mucous patches in the oral cavity; or condylomata lata in the vaginal or rectal regions.

Syphilis is known as 'the Great Mimicer' due to the wide range of cutaneous and systemic manifestations. Syphilis rash often mimic psoriasis, drug eruptions, pityriasis rosea and in rare cases, erythema multiforme. Erythema multiforme (EM) is a type IV hypersensitivity reaction, a cell-mediated reaction that occurs in response to contact with allergens. EM is often triggered by the herpes simplex virus (HSV), Mycoplasma pneumoniae, and medications.

#### **Objective:**

To highlight a rare dermatological presentation of secondary syphilis mimicking erythema multiforme and to emphasize the importance of considering syphilis in the differential diagnosis of annualr lesions.

#### **Materials & Methods:**

This is a case report of secondary syphilis mimicking erythema multiforme in an immunocompetent patient.

# Results:

A 24-year-old male, medically free, presented to the dermatology clinic with a two-month history of annular skin and genital lesions. The lesions had developed progressively and were not associated with any symptoms such as pain or pruritus.

The patient denied systemic symptoms. There was no history of genital or oral ulcers. He reported no recent use of medications or history of blood transfusion. His past medical and surgical histories were unremarkable, and there was no known family history of similar dermatologic condition.

On physical examination, multiple well-demarcated, blistering, annular lesions with crusting, and an erythematous rim, measuring 3–6 cm in diameter, were observed on the palms and soles. Examination of the scrotum revealed itchypolycyclic, annular hyperpigmented patches with hypopigmented rim (Figure 2). No lymphadenopathy was noted.

Routine laboratory tests revealed leukocytosis (white blood cell count:  $13.8 \times 10^9$ /L). Serological testing showed a reactive Venereal Disease Research Laboratory (VDRL) test and a rapid plasma reagin (RPR) titer of 1:64. Treponema pallidum hemagglutination assay (TPHA) was strongly positive with a titer of 1:5120. Screening for

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HIV, hepatitis B, and hepatitis C was negative. A punch biopsy was performed for further evaluation. Histopathological examination demonstrated mild acanthosis, interface dermatitis, and a mild perivascular lymphocytic infiltrate. These findings helped exclude other differential diagnoses, including erythema multiforme and granuloma annulare.

The patient was treated with a single intramuscular dose of benzathine penicillin G (2.4 million units) and prescribed a topical corticosteroid to be applied twice daily for two weeks. Clinical improvement was noted during follow-up.

## **Conclusion:**

This case highlights the diverse clinical manifestations of secondary syphilis and its potential to mimic erythema multiforme. Accurate diagnosis through detailed clinical assessment and serologic testing is essential for appropriate treatment and prevention of disease progression.

## when angioedema reveals kaposi's sarcoma

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# **Introduction & Objectives:**

Angioedema is a rapid swelling of the subcutaneous tissues, typically affecting the face, lips, or extremities. While commonly associated with allergic reactions or benign vascular disorders, it can also signal a more serious underlying condition such as Kaposi's sarcoma.

This vascular malignant neoplasm is frequently observed in patients with HIV/AIDS. In this case report, facial angioedema led to the diagnosis of Kaposi's sarcoma in a 25-year-old HIV-positive patient from sub-Saharan Africa who was on antiretroviral therapy. This highlights the importance of early diagnosis and appropriate therapeutic management.

#### **Materials & Methods:**

We report the case of a 25-year-old man from sub-Saharan Africa, with no significant past medical history, who presented with facial angioedema accompanied by papulonodular lesions. Dermatological examination revealed marked facial angioedema impairing vision, along with violaceous nodules located on the cheeks, forehead, and nose.

Dermoscopic evaluation revealed the characteristic rainbow pattern with dilated blood vessels arranged in an arciform structure, strongly supporting the diagnosis of Kaposi's sarcoma. HIV serology was positive. A skin biopsy and subsequent histopathological examination confirmed the presence of typical Kaposi's sarcoma lesions. The patient was initiated on antiretroviral therapy. However, within a few weeks, he developed acute respiratory distress. Further investigations revealed disease progression with complications related to Kaposi's sarcoma, ultimately resulting in death.

#### **Results:**

Kaposi's sarcoma is a malignant vascular tumor associated with HIV infection, often presenting with violaceous skin lesions caused by abnormal vascular proliferation. In this case, angioedema served as a revealing sign. Dermoscopic examination showed a typical rainbow pattern, which aided the diagnosis. Histological confirmation was obtained through skin biopsy. Management of Kaposi's sarcoma in HIV-positive individuals primarily involves antiretroviral therapy aimed at controlling HIV infection and improving immune function. Nevertheless, the prognosis remains poor in advanced stages, where lesion progression and respiratory complications may lead to fatal outcomes.

This clinical case underscores the importance of early detection of Kaposi's sarcoma, particularly when angioedema is associated with atypical skin lesions in an HIV-positive patient. Dermoscopy facilitated diagnosis, which was confirmed by skin biopsy. Although the patient was started on antiretroviral therapy, the severity and rapid progression of the disease led to acute respiratory distress and death.

## **Conclusion:**

This case highlights the need for early, aggressive management and continuous monitoring, as Kaposi's sarcoma can quickly lead to severe, life-threatening complications in immunocompromised patients.

# ¿Emergence of Mpox in the Americas 2025?: Report of Four Confirmed Cases in a one-month period

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# **Introduction & Objectives:**

Mpox is a zoonotic viral infection caused by the Mpox virus. It is characterized by skin lesions predominantly affecting the face, palms, and soles. Transmission occurs primarily through direct contact with infectious skin lesions or contaminated materials. Two main clades have been identified: the West African clade (milder disease), and the more virulent Congo Basin (Central African) clade. In 2022, the World Health Organization declared it a Public Health Emergency, and again in 2024.

- To describe the clinical presentation of Mpox for its identification
- To highlight the importance of its early recognition in non-endemic areas
- To contribute in Mpox surveillance and epidemiology

## Materials & Methods:

A punch biopsy was performed in each case. The specimens were processed for histopathological examination using hematoxylin and eosin staining and PCR.

# **Results:**

All patients currently living in Guadalajara. HIV-positive except for case number three. Sexual practices: men who have sex with men. All four denied attending mass events, traveling abroad, or having contact with individuals who had traveled outside Mexico or presented similar symptoms.

CASE 1 – April 7: 41-year-old male, restaurant owner. Occasional marijuana use. Sexual partners: 40–45. Last unprotected sexual encounter: March 17 2025. HIV diagnosis: April 4, 2025. Onset of vesicular lesions on March 28, affecting hands and oral cavity, followed by asthenia, weakness, odynophagia, non-productive cough, and pain in the inner canthus of the left eye. Later, unquantified fever and diaphoresis.

CASE 2 – April 23: 40-year-old male. Currently unemployed. Methamphetamine use since age 27. Sexual partners: over 100. HIV diagnosis in 2015; antiretroviral therapy initiated in 2023 (Biktarvy), discontinued in January 2025. One month prior, patient developed asthenia, weakness, and diarrhea. Painful anal lesions with yellowish discharge appeared one week before presentation, progressively increasing in number and size.

CASE 3 – April 25: 28-year-old male. Employee in human resources. Sexual partners: 10. Last unprotected sexual encounter: 15 days prior. On April 19, headache, asthenia, adynamia, unquantified fever, nasal congestion, chills, and intermittent diaphoresis, along with lesions in the oral mucosa, tongue, inner upper lip, and pharynx, with odynophagia. Subsequently developed nausea, vomiting, and new non-painful lesions on the genitals and hands. Negative serologic testing and rapid tests for HIV and syphilis.

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CASE 4 – April 28: 32-year-old male. Employee. HIV diagnosis in October 2023; under treatment with Biktarvy. Pulmonary tuberculosis 6 months prior, had treatment for 5 months. On April 27, reported foreign body sensation and burning pain in the anal region.

Histological findings were correlated with clinical features to support the diagnosis of Mpox. Confirmatory diagnosis was established through this and PCR laboratory testing.

# **Conclusion:**

The detection of four Mpox cases over a short time frame underscores the continuing risk of localized outbreaks in non-endemic regions. Dermatologists play a key role in early identification, especially given the cutaneous nature of the disease. Timely diagnosis, isolation, and reporting are critical to contain further spread. These cases highlight the need for sustained vigilance, updated clinical training, and coordinated public health responses, particularly as mpox continues to evolve and re-emerge globally.

A Multidimensional Investigation of HPV Awareness, Health Anxiety, and Obsessive Traits Among Patients with Genital Warts: A Cross-Sectional Comparative Study

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# **Introduction & Objectives:**

Human papillomavirus (HPV) is one of the most prevalent sexually transmitted infections worldwide. Although genital warts represent a visible clinical sign, the psychosocial impact of being diagnosed with HPV is considerable and potentially enduring. Challenging psychological reactions may occur and individuals often report concerns about contagion and transmission, potential cancer risk, relapse, and treatment burden. This study aimed to assess if HPV patients attending our dermatology department have higher levels of overall anxiety, health-specific anxiety, and contamination-oriented obsessive-compulsive traits compared to matched healthy controls.

## **Materials & Methods:**

This cross-sectional study included 176 patients with genital warts and 176 healthy controls matched for age, sex, and educational level, recruited from a dermatology outpatient clinic. Exclusion criteria included systemic comorbidities, psychiatric history, cognitive impairment, lack of informed consent, and age below 18 or above 65. Patients completed the HPV Knowledge Scale (for those aware of HPV), Beck Anxiety Inventory (BAI), Health Anxiety Inventory, Dermatology Life Quality Index (DLQI), and the contamination subscale of the Padua Inventory-Washington State University Revision (PE-WSUR). Controls completed the BAI, Health Anxiety Inventory, and the PE-WSUR subscale. A p-value < 0.05 indicated statistical significance.

# **Results:**

The mean age was 33.2 years in both groups, with no significant differences in demographic variables (p > 0.05) (Table 1). General anxiety (BAI) scores were similar between groups (patients:  $7.0 \pm 8.2$  vs. controls:  $6.1 \pm 7.0$ ; p = 0.546). However, patients with genital warts reported significantly higher health anxiety scores (mean =  $15.7 \pm 7.9$  vs.  $11.6 \pm 5.5$ ; p < 0.001) and contamination-related obsessive-compulsive symptoms, as measured by the PE-WSUR subscale (mean =  $18.1 \pm 10.0$  vs.  $12.5 \pm 8.4$ ; p < 0.001). The mean Dermatology Life Quality Index (DLQI) score was  $5.0 \pm 5.3$ , indicating a mild but clinically relevant impact (Table 2).

The HPV Knowledge Scale was completed by 155 patients (88.1%). Younger age correlated with higher HPV knowledge (r = -0.217, p = 0.004) (Table 3). HPV knowledge positively correlated with health anxiety (r = 0.153, p = 0.043). No significant correlations were found between DLQI, anxiety measures, and age, educational level, or time since lesion detection or diagnosis (all p > 0.05).

DLQI positively correlated with health anxiety (r = 0.272, p < 0.001) and general anxiety (r = 0.174, p = 0.021). Health anxiety moderately correlated with general anxiety (r = 0.367, p < 0.001) (Table 4)

#### **Conclusion:**

This study shows the significant psychosocial burden experienced by patients with genital warts, particularly in the domains of health-related anxiety and contamination-focused obsessive-compulsive traits. The absence of elevated general anxiety could be influenced by variability in the

time elapsed since diagnosis, as previous studies have indicated heightened anxiety responses, particularly around the time of receiving an HPV diagnosis.

The association between HPV knowledge and health anxiety further suggests that awareness may heighten psychological sensitivity. The results underscore the significance of integrating psychodermatological screening into routine care to address the specific psychological needs of patients with genital warts.\*\*

Group Patient Group Control Group Age Mean ± SD Min-Max (Median) 33.2± 8.9 33.2±9. 0,937 19-64 (32) 18-61 (32) Male 83.5 147 83,5 1,000 Woman 16,5 16,5 Education Level Primary education 19 10,9 7 43 4.0 High School 44 25,3 24,4 0,060 18 Associate Degree 21 12,1 10,2 License 90 51,7 108 61,4 18 3 HPV Vaccine There is 10,2 20 11,5 1 0,6 0,699 1,7 Intermediate dose 155 88,1 87,9

Table 2.

	Patient Group	Control Group		
	Mean ±SD	Mean ±SD		
	Min-Max (Median)	Min-Max (Median)		
Beck Anxiety Inventory	7.0± 8.2	6.1± 7.0	0,546	
	0-45 (4)	0-34(3)	0,540	
1-7: Minimal	117 (66,5)	128 (72,7)		
8-15: Mild	30 (17,0)	26 (14,8)	0,597	
16-25: Moderate	25 (14,2)	18 (10,2)		
26-63: Severe	4 (2,3)	4 (2,3)		
H 14 1 1 1 1 1	15.7± 7.9	11.6± 5.5	-0.001	
Health Anxiety Inventory	3-48 (14)	0-31(11)	< 0,001	
DE MIGHID T I C	$18.1 \pm 10.0$	12.5± 8.4	-0.001	
PE-WSUR Total Score	0-40 (18)	0-40 (12)	<0,001	
DLOI	5,0±5,3			
DLQI	0-23(3)			

Table 4							Table 3		
DLQI		LQI	Beck Anxiety		Health Anxiety				Age
	r	p	r	p	r	р	.1	г	n
Beck Anxiety	0,174	0,021					HPV Total Score	-0.217	0,004
Health Anxiety	0,272	< 0,001	0,367	< 0,001			mr v Total Score	-0,217	0,004
Age	-0.089	0,240	0,096	0,204	-0,071	0,349		0.096	0,204
Education Level	-0.044	0.565	-0.056	0.464	-0.036	0.636	Beck Anxiety	, , , , ,	,
Number of Lesions	-0.256	0.001	0.044	0,562	0,013	0,860	Health Anxiety	-0,071	0,349
HPV Total Score	0.084	0,265	0,013	0.864	0,153	0.043	DLQI	-0,089	0,240
PE-WSUR Total Score		0.026	0,059	0,439	0,106	0,162	PE-WEÜR Total Score	-0,051	0,500

# Antisemitism and syphilis: from the Spanish inquisition to nazi germany

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# **Introduction & Objectives**

The syphilis outbreak in late 15th-century Europe sparked widespread panic and a search for scapegoats. Jews—already viewed as a threatening "other" within Christian societies—were quickly blamed. The "syphilitic Jew" stereotype gradually emerged, shaped by religious, medical, and later political discourses, eventually becoming a pillar of Nazi antisemitism. This study explores how this stereotype was fabricated, spread, and exploited over five centuries.

#### **Materials & Methods**

This work draws on secondary literature (historical, medical, sociological) and primary sources (inquisitorial records, antisemitic pamphlets, Nazi propaganda). A diachronic approach contextualizes the evolving discourse from the 15th to the 20th century.

**Results** In Inquisition-era Spain, converted Jews (marranos) were accused of introducing syphilis, as the disease's emergence (1494–1495) followed their expulsion (1492). This "marrano plague" theory echoed older myths linking Jews to epidemics like the Black Death.

In the 17th and 18th centuries, rumors claimed Jews spread syphilis via metzitzah b'peh, a circumcision ritual. Controversial medical cases involving infected infants fueled suspicions of ritualistic transmission violating Western hygiene standards.

By the 19th century, pseudo-scientific racial theories redefined the Jew as a biological threat. Medical debates emerged around alleged "Jewish immunity" or racial predisposition to syphilis. Regardless of stance, the image of the "venereal Jew" solidified—intensified by the visibility of Jewish dermatologists treating syphilis.

Incidents like the Neisser case (1898), where a Jewish doctor was accused of infecting prostitutes, and criticism of Ehrlich's Salvarsan (1909), fueled antisemitic narratives accusing Jewish doctors of "medical poisoning."

Under Nazism, this construction peaked. In Mein Kampf, Hitler explicitly linked Jews to syphilis, portraying the disease as a racial weapon. Nazi propaganda depicted Jews as bacilli and syphilis as a symbol of "Jewish degeneration." Posters, textbooks, and media like Der Stürmer framed Jews as sanitary, moral, and racial threats. The Nuremberg Laws (1935), banning sexual relations between Jews and non-Jews, were justified by fears of racial contamination.

**Conclusion** The endurance of the "Jew = syphilis" trope reflects the symbolic role of the disease: shameful, sexually transmitted, and invisible—ideal for projecting internal societal threats. Already marginalized, Jews became the embodiment of contamination. Medical discourse, instead of dispelling prejudice, often reinforced it —via flawed statistics, racial pseudoscience, and biological metaphors. Jewish physicians attempted to debunk these myths with epidemiological data, but their impact was limited. This historical case warns of how real diseases can serve as vehicles for exclusion, and how medicine, without ethical safeguards, can become an ideological weapon. Ethical vigilance remains essential to prevent political misuse of scientific knowledge.

Buschke-Löwenstein tumor: Case study

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# **Introduction & Objectives:**

First described in 1896 by Buschke, Buschke-Löwenstein tumor is a pseudo-epitheliomatous proliferation caused by human papillomavirus (HPV), characterized by exo- and endophytic hyperpapillomatosis with hyperacanthosis. Through five case reports, we present the clinical, histological, radiological, evolutionary, and therapeutic profiles of Buschke-Löwenstein tumors.

## **Materials & Methods:**

## ChatGPT a dit:

Five male patients aged between 61 and 73 years presented with long-standing verrucous tumors in the anogenital region, all diagnosed as Buschke-Löwenstein tumors. Most had histories of unprotected sexual intercourse, and one patient was polygamous. Clinical findings included large, exophytic, cauliflower-like lesions, ranging in color from pink to brown or black, sometimes foul-smelling and purulent, located in perianal, scrotal, pubic, inguinal, and hypogastric regions. Tumor sizes varied, with some extending up to 10 cm and occupying extensive areas of the perineum. In all cases, digital rectal examination and colonoscopy were unremarkable. Pelvic MRI, when performed, showed no sphincter involvement or deep tissue extension. Serologies for HIV, hepatitis B and C, and syphilis were negative in all patients. Histopathological analyses confirmed the diagnosis of Buschke-Löwenstein tumor without evidence of malignant transformation. Patients underwent surgical excision.

# **Results:**

Buschke-Löwenstein tumor is a relatively rare sexually transmitted infection caused primarily by HPV types 6, 11, 16, and 18. Diagnosis is confirmed by immunohistochemical methods or molecular hybridization techniques such as polymerase chain reaction (PCR). Its annual incidence is about 0.1% in the sexually active adult population. It can occur at any age, but most frequently between the 4th and 6th decades of life. Clinically, it appears as a proliferative, ulcerated tumor that may be firm, hard, or friable, and tends to occur in moist areas at mucocutaneous junctions. In men, the tumor is penile in 80% of cases and may invade the corpora cavernosa and urethra. In women, the tumor most often affects the vulva, with potential extension to the labia, vagina, urethral meatus, and anus. In our case series, the tumor involved the perianal region, perineum, and penis in four patients. Hypogastric involvement was observed in one patient. Complications include infection, deep tissue invasion, fistulization to adjacent structures, and malignant transformation, particularly into squamous cell carcinoma, which occurs in approximately 30% of cases. Spontaneous regression is rare. Recurrence is possible, especially after incomplete excision

## **Conclusion:**

Buschke-Löwenstein tumor is a viral condylomatous epithelial proliferation with a significant risk of malignant transformation. Prevention is crucial and relies on controlling sexually transmitted infections and treating condyloma acuminata. Surgery remains the primary treatment modality, and early intervention is key to a favorable prognosis. Close postoperative clinical and histological follow-up is essential to detect degeneration or

recurrence.

# Persistent Misconceptions about STIs: A Barrier to Prevention

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**Introduction & Objectives:** Sexually transmitted infections (STIs) represent a major public health threat, yet numerous myths and misconceptions regarding their transmission and prevention persist. These erroneous beliefs can negatively influence preventive behaviors and increase the risk of STI transmission. The aim of this study is to assess the current state of knowledge and common myths about STIs in a sample of adults. Additionally, we seek to understand the impact of these beliefs on preventive practices, as well as the recognition of the role of screening in the management of STIs.

#### **Materials & Methods:**

A structured questionnaire was distributed via Google Forms to 196 adult participants, mainly aged between 25 and 50. The questionnaire covered various aspects of STIs, including transmission, prevention methods, common beliefs, and related preventive practices. The results were analyzed to identify accurate knowledge, persistent myths, and their potential impact on public health behaviors.

## **Results:**

The study's findings highlighted several important aspects regarding STI knowledge among the surveyed population. Most participants (95.9%) were aware that a single sexual encounter can lead to STI transmission, indicating a solid understanding of sexual risk. However, a significant proportion (79.6%) believed that condoms do not provide complete protection against all STIs, and 22.4% wrongly believed that washing after sex can eliminate the risk of transmission, reflecting persistent misconceptions. Furthermore, a popular myth remains: 51% of participants believed that using public toilets could transmit STIs, revealing a lack of understanding of actual transmission routes. Additionally, 38.8% believed STIs only affect people with multiple sexual partners, indicating a narrow view of risk factors. In terms of symptom awareness, 91.8% of respondents knew that a person can carry an STI without showing visible symptoms, highlighting good public health awareness. Moreover, 89.8% understood that untreated STIs can affect fertility, showing solid knowledge of the long-term consequences. Regarding screening and prevention, 88.6% of unmarried participants said they would be willing to undergo premarital testing with their future spouse, demonstrating openness to proactive prevention. However, only 12.2% believed such testing should be mandatory, while 38.8% considered it recommended but not obligatory, suggesting a need for more information on the benefits of STI screening. Finally, in terms of prevention, 98% of respondents understood that the contraceptive pill does not protect against STIs, showing good comprehension of the limits of hormonal contraceptives. However, the belief among 79.6% that condoms are not fully effective against all STIs reveals a certain distrust or misunderstanding of available preventive tools.

# **Conclusion:**

The results of this study reveal that despite a good understanding of the risks associated with sexually transmitted infections (STIs), many misconceptions and erroneous beliefs persist. These beliefs can negatively influence preventive behaviors and increase the risk of transmission. It is therefore essential to strengthen information and awareness campaigns about the modes of transmission and the importance of screening. Such initiatives are crucial to curbing the spread of STIs and improving public health in the long term.

## Lack of Serological Response to Syphilis Treatment by Delivery Does Not Affect Pregnancy Outcomes

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## **Introduction & Objectives:**

Maternal syphilis is associated with significant risks of adverse pregnancy outcomes, including perinatal mortality. A fourfold decline in non-treponemal antibody titers within six months following syphilis treatment is generally accepted as evidence of an adequate serological response. However, the duration of normal human gestation does not allow the ascertainment of an adequate serological response. The aim of this study was to assess correlations between the lack of a 4-fold decrease in non-treponemal titer by delivery after syphilis treatment and fetal and newborns' condition and serological outcomes.

#### Materials & Methods: \*\*

Fourteen pregnant women between 16 and 22 weeks of gestation, diagnosed with early syphilis (secondary or latent), were treated with intramuscular benzathine penicillin. Clinical, serological, and ultrasonographic monitoring was performed monthly. At delivery, patients were stratified based on their serologic response into two groups: those who achieved a fourfold titer reduction and those who did not. All newborns were clinically and serologically assessed for congenital syphilis at birth and then monitored until serological tests became negative.

## Results:

Fifty percent of the included women did not achieve a 4-fold decline in non-treponemal titer by delivery. Patients from the group showing a 4-fold decline in RPR titer at delivery and those without such a decline did not differ in basic demographic and clinical characteristics or in ultrasound parameters used for fetal assessment. Clinical and laboratory evaluation of the newborns on the day of delivery and during a 6-month follow-up revealed no cases of congenital syphilis or required treatment for syphilis.

# **Conclusion:**

The lack of an adequate serological response to syphilis therapy by delivery among patients treated between 16 and 22 weeks of pregnancy does not appear to be associated with adverse fetal and neonatal outcomes.

Syphilis Revisited: The Clinico-Dermoscopic and Histopathological assessment

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Syphilis Revisited: The Clinico-Dermoscopic and Histopathological assessment

# **Introduction & Objectives:**

Syphilis is a sexually transmitted disease caused by *Treponema pallidum* and acts as a "great imitator" due to various morphological presentations of distinct stages—primary, secondary, latent, and tertiary. From painless hard chancre to papulosquamous lesions to condyloma lata and mucous patches, it can have diverse clinical presentations. These cutaneous manifestations can mimic a wide range of dermatological conditions, leading to diagnostic challenges and delay in treatment.

It is usually diagnosed clinically along with serological tests, which can have limitations, particularly in early infection or in individuals with prior syphilis. Dermoscopy, allows the visualization of subtle morphological features not apparent to the naked eye, especially vascular patterns and surface characteristics. Histopathology also provides information about tissue architecture and cellular infiltrates, aiding in definitive diagnosis. This study presents dermoscopic and histopathological findings can enhance diagnostic accuracy and facilitate the differentiation of syphilis from its mimics.

## Materials & Methods:

In this prospective observational case series patients presenting with suspected syphilis underwent a thorough clinical evaluation followed by dermoscopic examination documenting vascular patterns and structural features of the lesions. Subsequently, dark ground microscopy was performed on all lesions to assess for *T. pallidum*, however, all results were negative, necessitating further diagnostic confirmation. Skin biopsies were then performed from representative lesions from both primary and secondary stages studied for histopathological features.

#### **Results:**

There were 10 cases of both primary and secondary syphilis that were evaluated. Clinically, primary syphilis (5 cases) presented with solitary, painless, firm ulcer with indurated borders over the penile shaft, glans, and prepuce. On dermoscopy, peripheral rim of irregular dotted and coiled vessels with a central white area were seen. Histopathology reported ulcerated epidermis with dense inflammatory infiltrate in the dermis composed of plasma cells, lymphocytes, and histiocytes predominantly around vessels. Endothelial swelling and obliteration were also observed in 2 cases. There were 5 cases of secondary syphilis in which 4 presented with erythematous scaly papulosquamous lesions over the body, with 1 also having condyloma lata over the perianal region. They have dotted and linear vessels, peripheral scale, along with a reddish-pinkish background with some white structureless areas and central crusting in a few lesions on dermoscopy. Epidermal acanthosis and spongiosis with predominant lympho-plasmacytic inflammatory infiltrate were seen in all. Granulomatous infiltrate and vasculitis along with endothelial swelling and proliferation were also there in few cases.

#### **Conclusion:**

Clinico-dermoscopic evaluation could help in early suspicion and diagnosis of various presentations of syphilis.

These insights are particularly valuable given the limited literature paving the way for future studies with more cases to aid in the diagnosis of this re-emerging disease.

# Knowledge and Behavioral Patterns Related to Sexual Safety Among MSM With and Without Syphilis in Armenia

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# **Introduction & Objectives:**

Between 2015 and 2023, syphilis cases in Armenia increased 11.2-fold, with men who have sex with men (MSM) identified as a particularly vulnerable group. This study aimed to investigate knowledge, behavioral patterns, and risk perception related to sexual safety among MSM with and without syphilis.

#### **Materials & Methods:**

A quantitative case-control study was conducted involving 93 MSM diagnosed with syphilis and 93 MSM without syphilis. Data were collected using electronic questionnaires administered at the National Center for Burns and Dermatology. Information regarding condom use, knowledge of sexually transmitted infections (STIs), and testing frequency was analyzed.

## **Results:**

The study showed that MSM with syphilis were more likely to report frequent condom use (61.3%) compared to those without syphilis (53.8%). Overall, 81.7% of participants reported consciously avoiding risky sexual encounters. In both groups, 74.2% of participants identified specialist consultations as their primary source of information. Self-assessed knowledge levels regarding STI prevention were high in both syphilis-positive (3.92 $\pm$ 1.16) and the syphilis-negative (4.04 $\pm$ 0.94) groups. While the importance of regular STI testing was recognized in both groups, syphilis-positive participants were more likely to consider it essential for maintaining health (78.5% in the positive group vs. 69.9% in the negative group). Additionally, 40.9% of participants had more than five sexual partners in the past 12 months. Both groups similarly self-assessed their knowledge about PEP and PrEP (3.5 in the syphilis-positive group and 3.9 in the syphilis-negative group), with most participants in both groups considering PEP and PrEP as methods for STI prevention.

## **Conclusion:**

Despite high awareness of sexual safety among MSM, this knowledge does not consistently translate into safe sexual practices. The higher rate of condom use among syphilis-positive individuals suggests that proper application skills may be as important as frequency of use. This findings highlights the need for educational programs to develop practical skills in applying theoretical knowledge, with special attention given to the 25–34 age group, where syphilis prevalence is highest.

## Hodgkin Lymphoma in an HIV-Positive Patient: A Multidisciplinary Case Management Approach

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**Introduction & Objectives:** Hodgkin lymphoma (HL) occurs more frequently in people living with HIV (PLHIV), with an estimated 20-fold increased risk compared to the general population. It often presents early in the course of HIV infection, particularly when CD4+ counts are moderately suppressed. The mixed cellularity (MC) subtype is the most prevalent histologic variant in HIV-associated HL. Management is complicated by immunodeficiency, coinfections, and potential treatment toxicities.

Materials & Methods: A 41-year-old male presented with fatigue, weight loss, decreased appetite, dysphagia, and oral dryness. Initial endocrine and metabolic tests were unremarkable. Due to lymphadenopathy and splenomegaly, lymph node biopsies were performed. Histopathologic and immunohistochemical analysis confirmed Hodgkin lymphoma, MC subtype. PET-CT showed widespread nodal involvement and splenic activity. The patient began ABVD chemotherapy but was later switched to BEACOPP due to clinical deterioration. During hospitalization, he tested positive for HIV (CD4 = 20 cells/µl) and hepatitis B (HBsAg+, HBV-DNA+). He was transferred to the Infectious Disease Clinic where ART, antibiotics, and prophylactic treatment were initiated.

**Results:** Upon HIV diagnosis, antiretroviral therapy (ART) led to a significant increase in CD4 count (from 20 to 225 cells/ $\mu$ l) and reduction in viral load . Follow-up PET-CT demonstrated complete metabolic remission of lymphadenopathy and splenic activity. The patient showed hematological improvement (Er = 4.06x10<sup>6</sup>/ $\mu$ l; Hgb = 133 g/dl; Le = 5.7x10<sup>3</sup>/ $\mu$ l; Tr = 146x10<sup>3</sup>/ $\mu$ l). Despite initial systemic involvement, the integrated oncologic and infectious disease treatment strategy resulted in favorable disease control.

Sexually Transmitted Infections and Viral Co-Infections: Serological testing revealed HIV infection, active hepatitis B (HBsAg+, HBV-DNA+), and past exposure to rubella and CMV (IgG+). The patient also tested positive for syphilis (RPR+, TPHA+), while HSV-2 and Toxoplasma serologies were negative. These findings necessitated targeted antimicrobial therapy, including Penicillin G and prophylaxis with trimethoprim-sulfamethoxazole and azithromycin.

**Conclusion:** This case underscores the diagnostic and therapeutic challenges of managing Hodgkin lymphoma in an HIV-positive individual. Early identification of co-infections, prompt initiation of ART, and tailored chemotherapy are critical for successful outcomes. Multidisciplinary collaboration among hematologists, oncologists, and infectious disease specialists is essential to optimize care in such complex clinical scenarios.

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# Knowledge and Behavioral Patterns Related to Sexual Safety Among MSM With and Without Syphilis in Armenia

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# Introduction and Objectives

Syphilis cases increased 11.2-fold per 100.000 populations between 2015-2023, in Armenia. This study aims to analyze the relationship between socio-demographic factors and syphilis prevalence among men who have sex with men (MSM) in order to support the development of targeted preventive interventions.

#### Materials and Methods

A case-control study was conducted at the National Center for Burns and Dermatology, comparing 93 MSM diagnosed with syphilis to 93 MSM without the infection. The analysis included participants' age, educational level, marital and social status, and place of residence, along with other socio-demographic factors. Statistical analysis was performed using SPSS-23 software.

## Results

The study found that syphilis prevalence was highest in the 25–34 age group (49.5%), while in the 18–24 age group, the proportion of syphilis-negative individuals (43.0%) was significantly higher compared to syphilis-positive individuals (21.5%). The 35–44 age group showed a reversed trend, with 21.5% of participants being syphilis-positive compared to syphilis-negative (7.5%). The proportion of married individuals was notably higher among those with syphilis (11.8% vs. 3.2%), as was the proportion of divorced individuals (10.8% vs. 2.2%). Interestingly, the percentage of individuals with permanent employment was almost the same in both groups (61.3% and 66.7%), but the unemployment rate differed significantly: 16.1% among syphilis-positive individuals compared to just 2.2% among those without syphilis. Place of residence had no significant impact: about 79% of participants in both groups lived in Yerevan.

## Conclusion

This study demonstrates that syphilis prevalence among men who have sex with men (MSM) in Armenia is linked to specific socio-demographic factors. Individuals aged 25–34 and 35–44, those who are married or divorced, and the unemployed are particularly at risk. These findings differ from some international studies that emphasize low educational attainment as a major risk factor. The results underscore the importance of designing targeted prevention programs based on identified risk factors and implementing population-level screening to support early detection and timely treatment of syphilis.

#### Socio-demographic Factors and Syphilis Prevalence Among Men Who Have Sex with Men in Armenia

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## Autochthonous Transmission of Trichophyton indotineae Through Sexual Contact in Europe, 2024

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## **Introduction & Objectives:**

Trichophyton indotineae is an emerging dermatophyte species characterized by extensive skin lesions and frequent terbinafine resistance. Initially described in India, this pathogen has now been reported globally. While sexual transmission of dermatophytes—particularly *T. mentagrophytes* ITS genotype VII (TMVII)—has been increasingly documented among men who have sex with men (MSM) in Europe and in the USA (Jabet, 2023; Bortoluzzi, 2024; Zucker, 2024), only a single case of sexually transmitted infection by *T. indotineae*, in a heterosexual context, has been reported to date (Spivack, 2024). We report four cases of sexually transmitted *T. indotineae* infections acquired in Europe, highlighting a potential new pattern of local transmission.

#### Materials & Methods:

Cases were diagnosed in 2024 in two French tertiary hospitals. Clinical data, sexual history, and travel background were collected. Dermatophyte identification was performed by MALDI-TOF MS using the MSI-2 database and confirmed by ITS region sequencing. Terbinafine susceptibility was assessed using a terbinafine-containing agar method, and the *SQLE* gene encoding squalene epoxidase (SQLE) was sequenced to detect resistance-associated mutations.

#### **Results:**

The four patients included two MSM with multiple sexual partners and two female sex workers (one cisgender, one transgender). Two were living with HIV under effective antiretroviral therapy. None had traveled outside Europe, though three reported sexual contact with partners from South Asia. Three lived in France at the onset of lesions and one in Portugal. Lesions were localized to the buttocks, with one case showing subsequent dissemination. Two patients were successfully treated with oral terbinafine, one with topical ketoconazole, while the fourth was lost to follow-up. One isolate showed terbinafine resistance due to F397L substitution in SQLE. The remaining isolates were terbinafine-susceptible, with the A448T substitution—known not to confer terbinafine resistance—detected in the corresponding sequences.

## **Conclusion:**

These cases reveal autochthonous transmission of *T. indotineae* in Europe via sexual contact. Unlike TMVII, which has so far affected only MSM in France, *T. indotineae* is also affecting female sex workers, pointing to differing transmission dynamics. These cases highlight the global spread and establishment of *T. indotineae* outside initial endemic areas as recently described in China (Xie, 2024). Importantly, two distinct SQLE substitutions (F397L and

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A448T) were identified across the isolates, suggesting circulation of multiple strains through sexual networks. Given the therapeutic challenges posed by *T. indotineae* and the risk of broader spread, dermatologists and sexual health providers should remain vigilant. Routine mycological testing, including dermatophyte identification by MALDI-TOF Mass Spectrometry (MSI-2 application) and/or ITS sequencing, is essential for diagnosis and treatment guidance.

Severe Herpes Zoster Revealing HIV and Hepatitis C Co-Infection in a Patient with Vitiligo: A Case Report.

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### **Introduction & Objectives:**

Herpes zoster (HZ) is a neurocutaneous disease resulting from the reactivation of the varicella-zoster virus. It can manifest with diverse clinical presentations, some carrying a higher risk of complications. The literature concerning HZ continues to evolve, particularly regarding immunocompromised patients.

We herein report a case of a middle-aged patient admitted for severe herpes zoster, which led to the unexpected diagnosis of co-infection with HIV and hepatitis C.

#### **Results:**

A 63-year-old male with a medical history of vitiligo presented to the clinic reporting burning radicular pain accompanied by itching, numbness, and dysesthesias. Clinical examination revealed erythematous plaques with vesicles arranged in a zosteriform pattern, with some coalescing into polycyclic bullae exhibiting areas of necrosis. The lesions followed a left-sided, multimetameric distribution involving dermatomes L2, L3, L4, S1, and S2, strictly limited by the midline. Additionally, satellite varicelliform lesions were observed outside the primary dermatomal areas. Examination also revealed multiple hypopigmented macules with well-defined, festooned borders, symmetrically distributed across the body—consistent with vitiligo. This disseminated HZ is uncommon and is more frequently observed in immunocompromised patients.

Further serological testing confirmed co-infection with HIV and hepatitis C virus, suggesting an underlying immunocompromised state that likely contributed to the severity and atypical presentation of herpes zoster.

The patient was treated with intravenous acyclovir (10 mg/kg every 8 hours), along with appropriate analysis for neuropathic pain. Subsequently, he was referred to infectious disease specialists for the initiation of antiretroviral therapy and evaluation for hepatitis C management.

#### **Conclusion:**

Herpes zoster may be the initial clinical indicator of HIV infection, particularly in cases presenting with severe or atypical features. Furthermore, certain manifestations of HZ, especially in immunocompromised patients, are associated with a higher risk of complications. Postherpetic neuralgia, a common and debilitating chronic neuropathic pain syndrome, can significantly impair quality of life. Moreover, the relation between autoimmune disease, chronic viral infections, and acute viral reactivation represents a complex immunopathological interaction warranting further research. Understanding these relationships could improve early diagnosis, guide therapeutic strategies, and aid in the prevention of complications.

Buschke-Löwenstein Tumor: A Historic Case

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#### **Introduction:**

The giant condyloma acuminatum, or Buschke-Löwenstein tumor (BLT), is a rare sexually transmitted disease. It is a viral infection caused by human papillomavirus (HPV), most commonly types 6, 11, 16, and 18. BLT primarily affects men and is characterized by its capacity for extensive local invasion, both superficially and in depth, along with a risk of malignant transformation and recurrence after surgical excision. We report a case of a giant condyloma acuminatum with perineo-scrotal and anorectal involvement.

## **Case report:**

A 77-year-old male with a history of unprotected sexual intercourse and multiple sexual partners, without a history of homosexuality, and with chronic smoking (57 pack-years), presented with multiple verrucous lesions initially located in the periscrotal area. Over time, these lesions extended to the external genitalia, inguinal folds, and anorectal region, progressively increasing in size and number, with a tendency toward ulceration, causing significant impact on his sexual life. Dermatologic examination revealed multiple irregular exophytic verrucous lesions, some resembling cauliflower, with blackish-brown or pink coloration; the lesions were infiltrated. There was no lymph node involvement. The remainder of the clinical examination was unremarkable. HIV, syphilis, and hepatitis B and C serologies were negative. Skin biopsy confirmed condyloma acuminatum (Buschke-Löwenstein tumor) without evidence of malignant transformation or invasion. The patient underwent surgical excision.

## **Discussion:**

Buschke-Löwenstein tumor (BLT) is a rare, sexually transmitted condition predominantly affecting men. It is linked to high-risk HPV types (6, 11, 16, 18) and often associated with risky sexual behavior. Although histologically benign, BLT is locally aggressive with potential for deep tissue invasion, recurrence, and malignant transformation. Management relies on wide surgical excision with regular clinical and histological follow-up. This case underscores the importance of early detection, treatment, and prevention through HPV vaccination, protected sexual practices, and public health education.

#### **Conclusion:**

Buschke-Löwenstein tumor is a rare sexually transmitted disease that poses a significant risk of local invasion and malignant transformation. Early surgical intervention and vigilant follow-up are essential to reduce complications. Prevention remains crucial and relies on HPV vaccination, condom use, and comprehensive sexual education.

## Dermatological Manifestations as Early Indicators of HIV Infection: A Clinical Series of 30 Cases

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## **Introduction & Objectives:**

Dermatological manifestations can be the first clinical signs of the disease, playing a key role in early diagnosis. Unusual, severe, resistant to treatment, or atypical presentations of mucocutaneous lesions should raise suspicion of HIV. Cases described in the literature where skin lesions are the first manifestation of HIV infection remain rare. This study aims to report the dermatological manifestations that revealed HIV in 30 patients and to highlight the importance of screening in certain situations.

#### **Materials & Methods:**

As part of a prospective cross-sectional study on cutaneous and mucosal manifestations in HIV-positive patients at Hassan II University Hospital in Fès, in collaboration with the Infectious Diseases Department, we included 30 patients in whom HIV infection was diagnosed following dermatological manifestations. Patients already diagnosed as HIV-positive were excluded from the study.

#### Results:

Thirty HIV-positive patients were evaluated, comprising 80% men and 20% women, with a mean age of 36.8 years (range: 23–65 years). The average duration of mucocutaneous symptoms prior to HIV testing was two months.

The leading reason for HIV screening in our series was herpes zoster, identified in 9 young patients, placing them in clinical stage B. Of these, 5 had ophthalmic, 2 brachial, 1 crural, and 1 intercostal zoster. Notably, two patients developed necrotic zoster, and one had a bullous form. HIV testing was also conducted in five patients with disseminated Kaposi's sarcoma, histologically confirmed. This group included four men and one woman, all with cutaneous and mucosal involvement, and two with visceral disease—pulmonary involvement and lymphadenopathy. Four patients were screened after presenting with anogenital condylomas during STI evaluation. Three patients with extensive psoriasis underwent HIV testing—two for pre-therapeutic assessment and one due to atypical treatment resistance in a dark-skinned individual. In two cases, patients had translucent, umbilicated, firm, non-pruritic papules, with dermoscopy showing a central punctum and crown-like vascularization, suggesting molluscum contagiosum. Viral load testing was performed on two patients hospitalized with generalized exanthem and systemic symptoms suggestive of acute retroviral syndrome. One HIV diagnosis came from a patient referred for a syphilitic rash, which led to the discovery of HIV. Other cases included treatment-resistant prurigo with erythematous-pigmented papulonodular lesions, chronic telogen effluvium with reduced hair density and anisotrichia on trichoscopy, a large condylomatous anal tumor, and lymphogranuloma venereum diagnosed during STI screening.

#### **Conclusion:**

The skin can serve as an early indicator of HIV infection, particularly when dermatological manifestations appear in atypical, more severe, or treatment-resistant forms. Certain dermatoses, such as shingles (herpes zoster), Kaposi's

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sarcoma, condylomas, and molluscum contagiosum, are particularly frequent in HIV-positive individuals. In the presence of these signs, it is crucial to systematically perform an HIV test to confirm the infection. Furthermore, in cases of suspected retroviral syndrome, it is essential to request the viral load rather than a serology. Early detection of HIV allows for faster and more effective patient management.

# Doxycycline for Acne and Its Association with Bacterial STI Acquisition in the All of Us Research Program: A Case-Control Study

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## **Introduction & Objectives:**

Doxycycline, a tetracycline antibiotic, is widely prescribed in dermatology for acne, rosacea, and hidradenitis suppurativa, and has recently gained attention as post-exposure prophylaxis (DoxyPEP) for bacterial sexually transmitted infections (STIs). This study aimed to examine STI diagnosis trends among acne patients prescribed doxycycline, assessing its potential protective effect against bacterial STIs.

#### **Materials & Methods:**

We conducted a retrospective case-control study using data from the NIH All of Us Research Program. The study population included acne patients aged 18–45, with doxycycline prescriptions initiated within 90 days of diagnosis. STI acquisition risk within 90 days was compared between those taking doxycycline and those not. Similar analyses were conducted for patients on Descovy or Truvada as proxies for high-risk sexual behavior. Odds ratios (ORs), risk ratios (RRs), and one-sided Fisher's exact tests (p < 0.05) were used to assess statistical significance, with multivariate analyses performed in StataNow/SE 18.5.

#### **Results:**

Of 6,796 acne patients, 1,410 were prescribed doxycycline. Doxycycline use was associated with a statistically significant reduction in chlamydia risk (OR: 0.68; 95% CI: 0.48–0.94). Although syphilis and gonorrhea trends were similar, confidence intervals included 1. Among patients on Truvada or Descovy, similar non-significant trends were observed. When aggregating all three STIs, doxycycline use correlated with a significant overall risk reduction (OR: 0.78; 95% CI: 0.61–0.99).

## **Conclusion:**

These findings suggest a potential protective effect of doxycycline against STIs in acne patients, reinforcing its evolving role in dermatology and public health. As DoxyPEP gains traction, dermatologists should consider its implications for STI prevention and integrate modern sexual health assessments into routine dermatologic care. Further research with larger, more controlled populations is warranted.

## Mpox in Brazil: Clinical Presentation, Diagnostic Workup, and Patient Management

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### **Introduction & Objectives**

Mpox (formerly known as monkeypox) is an emerging zoonotic viral disease, caused by the Monkeypox virus of the *Orthopoxvirus* genus. Since 2022, an increasing number of cases with sexual transmission have been reported, notably among men who have sex with men (MSM). The objective of this clinical case report is to illustrate the diagnostic challenges posed by atypical dermatological presentations of Mpox in young, sexually active adults and emphasize the importance of clinical suspicion, laboratory investigation, and public health measures.

#### **Materials and Methods**

A 21-year-old single male soldier, Fitzpatrick phototype II, residing in Itaboraí (Brazil), presented to the dermatology service reporting the sudden appearance of "small bumps" on the skin, starting in the epigastric region and left palm, associated with intense generalized pruritus. He also reported low-grade fever, nausea, and asthenia. His sexual history included unprotected intercourse two weeks prior to onset, with unclear recall due to intoxication. He had a history of untreated generalized anxiety disorder and reported social smoking and alcohol consumption.

Initial dermatological examination revealed erythematous plaques with central ulcerations and necrotic crusts on the abdomen and groin, vesicles on the palm, and ulcerated pustules on the dorsal penis. Inguinal lymphadenopathy was present. The patient denied any similar symptoms in close contacts. Initial treatment included cefalexin and bilastine, and PCR for Mpox was requested, along with serologies for syphilis, HIV, and viral hepatitis.

#### Results

Seven days after the initial visit, the patient reported partial improvement but noted new vesicular lesions on the hands. Despite medical advice, he did not comply with isolation guidelines and sought treatment at an emergency service due to fear of Mpox, receiving azithromycin, benzathine penicillin, and topical corticosteroids. Upon reevaluation, new vesiculopustular lesions were documented on the palm, fingers, and previous sites. Examinations showed persistent ulcerations with necrotic crusts and additional signs of polimorphism.

Laboratory results revealed a normal complete blood count, negative HIV, HTLV, hepatitis A/B/C, and syphilis serologies. However, the PCR result for Mpox was still pending by the time of follow-up. Clinical findings, epidemiological context, lesion morphology, and symptom progression remained highly suggestive of Mpox.

## Conclusion

This case reinforces the evolving clinical spectrum of Mpox and its potential for sexual transmission, particularly in young, sexually active individuals. The presence of genital lesions, polymorphic exanthema, and regional lymphadenopathy should raise suspicion. Delayed diagnostic confirmation, patient non-compliance with isolation, and self-medication underscore public health challenges. Accurate diagnosis requires clinical-laboratory correlation and immediate notification. Awareness, early isolation, and contact tracing are key to containing outbreaks. This case highlights the importance of maintaining a high index of suspicion and implementing public

health protocols promptly, even in the absence of confirmatory PCR results.

# Beyond the Stigma: A Culturally-Tailored Digital Strategy to Promote HPV Vaccination Among Adolescents and Caregivers in Latin America

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# **Introduction & Objectives:**

Human papillomavirus (HPV) affects individuals of all genders, causing both genital and non-genital lesions; however, public health strategies have largely framed HPV as a sexually transmitted infection primarily affecting females. Despite the demonstrated efficacy of HPV vaccination, global coverage remains suboptimal. In Latin America, the prevalence of HPV infection among unvaccinated women aged 18 to 26 years is 60.2%, with 50% of cases associated with high-risk serotypes. Among males aged ≥15 years, the infection rate is 33.3%, yet only 4% had received the HPV vaccine as of 2019. Vaccine hesitancy, driven by persistent misconceptions, stigma, and mistrust, continues to impede widespread acceptance and implementation of vaccination programs.

This study aimed to assess knowledge, attitudes, and practices (KAP) related to HPV and its vaccine among students, caregivers, and teachers, and to design a culturally relevant digital educational tool to promote vaccine acceptance and reframe HPV prevention strategy by engaging adolescents and caregivers during a formative stage of health decision-making, this approach aims to maximize vaccine efficacy.

#### Materials & Methods:

A mixed-methods study was conducted in a high school in Bogotá, Colombia, involving 125 students aged 11–16 years, their caregivers, and teaching staff. In Phase 1, participants completed structured KAP surveys with openended qualitative items. In Phase 2, focus group "discussion panels" were held to explore perceptions and codevelop a tailored digital educational tool (podcast, mobile app, or video game). In Phase 3, the survey was readministered to assess changes post-intervention. Data were analyzed using NVivo 14.

## **Results:**

While 74.1% of caregivers and 66% of students reported prior awareness of the HPV vaccine, significant misconceptions persisted. Many students confused HPV with HIV or other unrelated illnesses and lacked understanding of its viral nature and transmission. Although most correctly identified the vaccine's recommended age range, confusion remained regarding dosage and duration of protection. Concerns about adverse effects and residual distrust from past public incidents were common. Despite regular digital media use, adolescents cited caregivers, particularly mothers, as their most trusted source of health information.



## **Conclusion:**

Findings highlight the need for early, accurate, and non-stigmatizing HPV education that transcends genital and gender-specific frameworks. The co-developed digital tool shows promise in supporting informed decision-making, especially when it fosters intergenerational dialogue and targets populations at a pivotal stage for preventive interventions. An interdisciplinary, community-driven strategy that integrates dermatology, venereology, and public health can promote timely, destigmatized HPV education, expand its perceived relevance across genders, and reframe vaccination as a collective act of disease prevention.