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Case Report

HIV-Syphilis Coinfection: The Clinical Intersection of 02 Cases

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Abstract

Syphilis is a complex disease, which is sexually transmitted. The incidence of syphilis is rising all over the world, partly due to the increased transmission in HIV patients and other high-risk groups such as the homosexual population. Interestingly syphilis itself facilitates HIV infection in several ways. Great importance exists in recognition of both diseases and their complex interactions.

Keywords: Syphilis; Human Immunodeficiency Virus; Co-infection

Introduction

Syphilis has been termed the “great mimic” due to its versatile and varied disease presentations. Dermatological findings could be more variable in patients with syphilis and concomitant HIV. These two Sexually transmitted diseases are indeed dangerous combinations. The present communication describes two different cases of syphilis and HIV co-infection in young men illustrating this particular intersection.

Case Report

Case 1

A 28-year-old man with a chief complaint of rashes on both palms, soles of the feet, face and trunk. The rashes spread with no itching, heat, or pain, which occurred two weeks ago. He had history of unprotected sexual intercourse and homosexuality the patient was diagnosed with HIV 6 months ago. Physical examination found: diffuse erythematous, papular eruption with clear boundaries involving the face, trunk and upper and lower extremities (Fig. 1) covered with scales measured approximately 1 cm and involved the palms and soles (Fig. 1) as well as the left oral commissure (Fig. 1) and multiple painless, ulcerated lesions on his penis (Fig. 1).

Venereal Disease Research Laboratory (VDRL) serology titer was 1:64 and Treponema Pallidum Haemagglutination Assay (TPHA) was 1:40960. The cerebrospinal fluid Venereal Disease Research Laboratory test was nonreactive, thus ruling out the presence of neurosyphilis. These clinical / biological findings are suggestive of secondary and primary syphilis with in a seropositive patient. Benzathine penicillin G 2.4 million units was given intramuscularly 3 times at 1-week intervals. The patient experienced clinical improvement and decreased VDRL and TPHA titers.

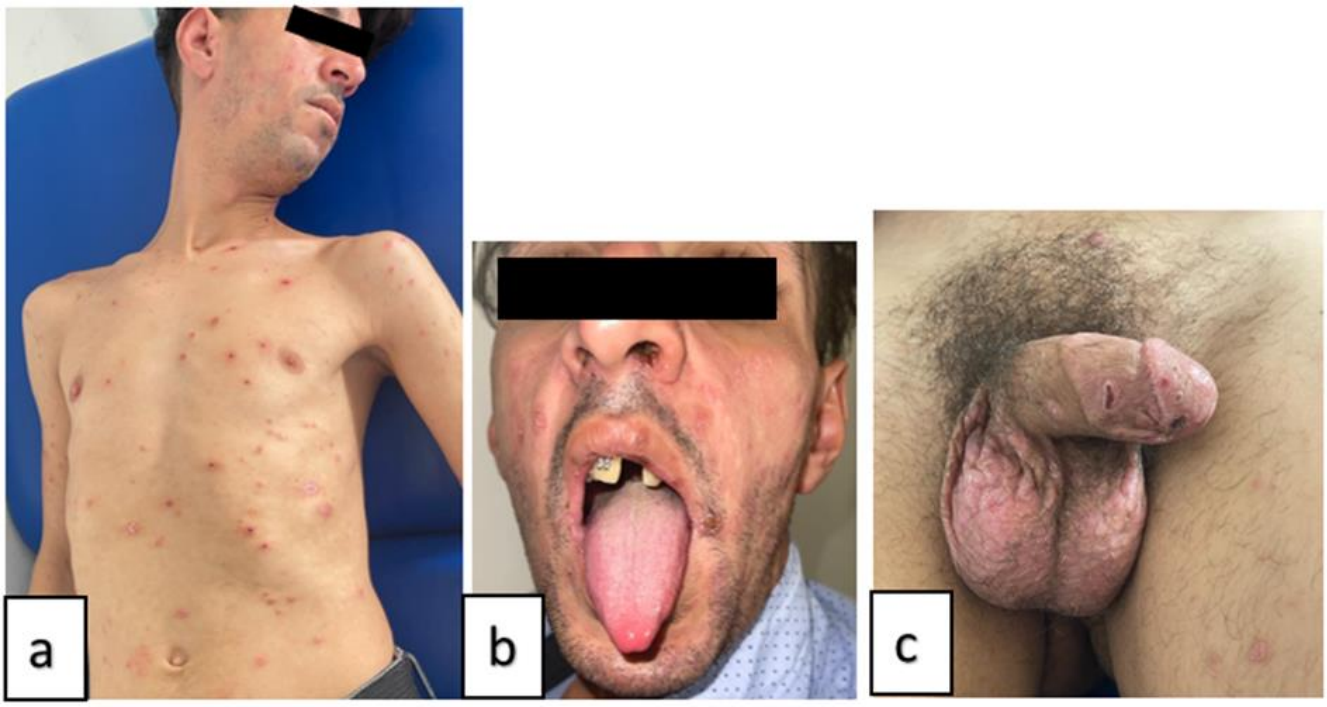

Figure 1: (a) Diffuse erythematous, papular eruption with clear boundaries involving the face and the trunk surrounded by fine desquamation; (b) Papule in the left oral commissure; (c) Multiple ulcerated lesions on penis.

Case 2

A 25-year-old man with notion of homosexuality and unprotected sex, presented with an asymptomatic reddish rash that was a week old. Dermatological examination found scattered copper-red papules on the face, trunk and palms of the hands (Fig. 2), some of which are ulcerated (Fig. 2). The palmar lesions were multiple made up of small raised coppered papules surrounded by fine desquamation (Biett's collarette). The workup revealed a positive syphilitic serology with a VDRL level of 1/64, a positive HIV serology and the cerebrospinal fluid Venereal Disease Research Laboratory test was nonreactive. The patient was treated with 3 injections of depot penicillin.

Figure 2: (a) Diffuse papules on the trunk; (b) Palms of the hand; (c) Ulcerated papules.

Discussion

Human Immunodeficiency Virus (HIV) and syphilis are both sexually transmitted diseases, there is a strong epidemiological association between the two infections [1]. Syphilis produces genital lesions or an inflammatory response (Macrophages and T-cells) that promote HIV replication. Thus, coinfection is common and the two diseases affect each other in several ways [2]. Several unusual manifestations of syphilis observed in the presence of concurrent HIV infection are increased severity of clinical manifestations, rapid progression of syphilis to the tertiary stage within weeks or months of initial infection [1]. Secondary syphilis occurs as a result of blood or lymphatic dissemination of *Treponema Pallidum*. The natural course of syphilis may be altered in HIV positive patients. This usually results in a more malignant course [3], but a higher rate of asymptomatic primary syphilis is also seen [4]. HIV coinfection is associated with multiple and deeper chancres, which are slower to resolve [5]. One fourth of HIV infected patients present with concomitant lesions of both primary and secondary disease at the time of diagnosis, as is the case in our first patient. Although syphilis presentation in patients with HIV is largely similar to that in patients without HIV, differences in disease manifestation may be present [6]. Patients infected with both HIV and syphilis show chancres characteristic of primary syphilis, although these chancres may be more numerous, larger and deeper. In patients with advanced HIV, secondary syphilis may present as malignant secondary syphilis. This is characterized by severe ulcerating lesions as is the case in our second patient [7]. For over half a century, injectable penicillin has been utilized for syphilis treatment without any recorded instances of penicillin-resistant strains. Nonetheless, there is ongoing discussion regarding the approach to managing syphilis in people with HIV. While global recommendations propose treating syphilis uniformly regardless of HIV status and advocate for a single injection of Benzathine Penicillin G (BPG) for early syphilis treatment [8]. To sum up, our cases underscore not just the co-occurrence of syphilis and HIV, but also draw attention to variations in clinical symptoms and laboratory findings in syphilis, which could be crucial for effectively managing these patients.

Conclusion

Syphilis is an old-new disease transmitted through sexual contact. Today, syphilis and HIV go hand in hand because they affect similar subgroups, both make each other easier to acquire and can worsen the clinical course of both diseases. The intersection of HIV and syphilis infections continues to evolve in the modern era, posing new and unique challenges in diagnosis, treatment and prevention. Moving forward, there continues to be a significant and growing need for more accessible testing strategies, alternative treatment regimens and improved approaches to the prevention of both HIV and syphilis.

Conflicts of Interests

The authors declare that there is no conflict of interest for this paper.

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