

Case Report

Early syphilis presenting as anal fissure: a case report

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Abstract Syphilis is a chronic, systemic and infectious sexually transmitted disease. It is one of the great imitators in medicine affecting most of the organs in the body. It can present to any practitioner mimicking any medical or surgical disorder. We present a case of early syphilis which initially presented to surgeon as anal fissure and just before surgery; he was found to have a widespread skin rash, suggestive of secondary syphilis. On inquiry, he admitted to homosexual practice for the last 4-5 years. Diagnosis was confirmed on serology and was treated accordingly. Skin rash as well as anal symptoms disappeared within two weeks of treatment. He was referred to psychiatrist for behaviour therapy and was advised regular follow up.

Key words

Early syphilis, anal fissure, homosexuality.

Introduction

Syphilis is an infectious disease caused by the spirochete *Treponema pallidum*. It is almost always transmitted by sexual contact with infectious lesions, but it can also be transmitted in utero and via blood transfusion. It has a myriad of presentations and can mimic many other infections and immune-mediated processes in advanced stages. The complex and variable manifestations of the disease prompted Sir

William Osler to remark that, "The physician who knows syphilis knows medicine." After initial invasion through mucous membranes or skin, the organism multiplies rapidly and disseminates widely. The organism spreads through the perivascular lymphatics and then the systemic circulation before clinical development of the primary lesion. Primary syphilis produces ulcers over the site of inoculation, and secondary syphilis is characterized by contagious skin lesions, lymphadenopathy, and condylomata lata. Systemic spread, including invasion of the central nervous system, can occur early in infection and may be symptomatic during early or late stages of syphilis. The disease then evolves into a latent phase in which syphilis is not clinically apparent. If left untreated, as many as one third of patients progress to have potentially severe late

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gummatous, cardiovascular, and neurologic complications. Regardless of the stage of disease and location of lesions, two histopathologic hallmarks of syphilis have been noted including obliterative endarteritis and plasma cell-rich mononuclear infiltrates. Endarteritis is caused by the binding of spirochetes to endothelial cells, and mononuclear infiltrates reflect a delayed-type hypersensitivity response to *T. pallidum*. Diagnosis is confirmed by a combination of a screening (non treponemal) test and a specific (treponemal) test. The mainstay of the treatment is still penicillin and unlike many other organisms, this spirochete, fortunately, has not shown resistance to this drug.¹⁻⁴ Diverse sexual practices occur in different groups of almost all societies regardless of sexual orientation. Homosexuality in our culture seems not as prevalent as in the west but it is, however, underreported because of religious restrictions and social prejudice. In male homosexuals, possible proctologic complications of anal intercourse include allergic reactions to anal lubricants, prolapsed hemorrhoids, and fistulas, and fissures.⁵ They have an increased risk of a variety of sexually transmitted diseases other than HIV infection including, gonorrhea, syphilis, and human papillomavirus infection, as well as hepatitis B.⁶ Anal and perianal carcinomas also occur more frequently in this group.⁷ The idea of presenting this case is to highlight the diverse presentation of an important, curable, sexually transmitted disease

Case history

A 20-year-old male, working in a semimilitary organization (MES) presented

to surgical outdoor with two week history of painful anal lesions. He was diagnosed as a case of anal fissure and was admitted for surgical treatment. Just before, he was to undergo surgery, surgeon noticed an unusual rash over his body. Suspecting it to be a rash of chicken pox, he referred him for dermatological consultation. On examination, he was found to have generalized pityriasiform rash all over his body of two days duration. It was more marked over face and trunk (**Figures 1 and 2**). Epitrochlear, cervical and inguinal lymph nodes were bilaterally palpable and were discrete, non tender and mobile. On examination of genitalia, scattered pityriasiform lesions were seen on scrotum, shaft of penis and pubic region. Multiple, confluent, vegetative lesions were present involving the whole circumference of external anal sphincter and adjoining perianal region (**Figure 3**). His vitals were stable and blood complete picture, urine analysis and metabolic profile were within normal limits. He was clinically diagnosed as a case of secondary syphilis and was confirmed by positive serology of both venereal disease research laboratory test (VDRL) and *Treponema pallidum* hemagglutination test (TPHA) in high titers (VDRL was positive in 1:256 and TPHA in 1:32 dilutions). HIV screening was negative. On inquiry, he admitted that he had been involved in homosexual practice with multiple partners for the last 5-6 years and was enjoying receptive anal intercourse. He was treated with two shots of long acting benzathine penicillin 2.4 million units I/M at weekly interval. Pityriasiform skin rash as well as anal and perianal lesions settled in two weeks (**Figures 4-6**) leaving behind some postinflammatory hyperpigmentation.



Figure 1 Pityriasisiform/seborrheic dermatitis-like rash over face.



Figure 4 Post treatment facial lesions (hyperpigmented macules)



Figure 2 Bilaterally symmetrical pityriasisiform rash over trunk.



Figure 5 Posttreatment trunk and upper extremity lesions (healed)



Figure 3 Multiple confluent vegetating lesions on anal margin and perianal region (condyloma lata)



Figure 6 Post treatment anal and perianal region (healed condyloma lata and anal fissure)

He was referred to psychiatrist for behaviour therapy and counseled for contact tracing. Treatment of contacts was emphasized and was advised strict follow up.

Discussion

Homosexual practice exists to variable proportion in almost all societies. About half a century ago, Kinsey *et al.*⁸ reported that

8% of men and 4% of women were exclusively homosexual for a period of at least three years during adulthood. Four percent of men and 2 percent of women were exclusively homosexual after adolescence. Thirty-seven percent of men and 20 percent of women reported at least one homosexual experience that resulted in orgasm⁸. Such patients who are involved in regular homosexual practices are vulnerable to suffer a variety of anorectal pathologies. Despite having traumatic and painful anorectal disease and various sexually transmitted infections, they are also at risk of developing anal or anorectal carcinomas.⁵⁻¹⁰ Homosexuality exists in our society too, but these cases are usually underreported due to widespread tendency to view homosexuality as a social as well as religious stigma and to depict homosexual people in terms of negative stereotypes. In a recent study done in four provincial capital cities of Pakistan revealed that 465 male patients suffering from sexually transmitted infections 11.6 % were found homosexual.⁹ Anal fissures are highly likely to occur in the midline, particularly posteriorly and fissures occurring off the midline raise the question of an underlying disorder, such as Crohn's disease, anal carcinoma, human immunodeficiency virus infection, or syphilis¹². In the case presented here, the likely etiology of the anal fissure was primary syphilitic chancre in combination with anal trauma because of receptive anal intercourse. Generalized pityriasiform rash and condyloma lata in perianal region revealed secondary syphilis. So this was a case of early syphilis in which primary and secondary lesions were present simultaneously and it was his good luck that he survived unnecessary and potentially

harmful surgical intervention (due to infectious/contagious phase of the disease).

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