A Case Study: Secondary Syphilis with HIV

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Abstract: Syphilis is a sexually transmitted infection caused by Treponema Pallidum subspecies Pallidum. According to WHO the annual global incidence of syphilis is approximately 12.2 million cases. There is a strong epidemiological association between syphilis and HIV infection. Syphilis is common among patient with HIV infection and converse is also true. Therefore, we present here a case of Secondary Syphilis with HIV. A 22 year old male student came with multiple generalised asymptomatic skin lesions. Diagnosis was confirmed by serological studies- RPR (Reactive), TPHA (Positive), HIV 1&2 (Reactive).

Keywords: Secondary Syphilis, Human Immunodeficiency Virus, Rapid Plasma Reagin, Treponema Pallidum Haemagglutination (TPHA).

I. Introduction

Syphilis “The Great Imitator” is among the most fascinating of skin diseases. Syphilis is a disease with broad range of manifestations and unusual clinical presentations. Moreover secondary syphilis should be considered in the differential diagnosis of any dermatosis which is atypical. Secondary Syphilis associated with HIV could be a diagnostic conundrum. A high proportion of patients are co infected (in 2014, 51.2% of cases of reported primary and secondary syphilis among MSM were also HIV positive), but incident syphilis infection also is associated with a significantly increased risk of HIV acquisition. Here reporting a case of secondary syphilis without any history of primary syphilitic lesion, and which was confirmed to be HIV reactive on further investigations.

II. Case Report

A 22 year old male, student by profession, presented in skin OPD, RIMS Ranchi with complaints of generalised, asymptomatic skin rash for last 3-4 months without any constitutional symptoms. On thorough examinations, multiple, discrete dull red papules were present on chest, abdomen, back (mostly upper half), both hands and lower limbs.
Figure 1: Multiple Discrete Red Papules distributed over entire back, buttocks.

Irregular, well defined, copper colored plaques, largest measuring 2 into 1 cm in size mainly situated on lower back, buttocks, thighs. Some plaques were associated with scaly margin which were rolled out. Patient complained of slight itching in these lesions.

Multiple, discrete, hyperpigmented macules of size largest 2.5 into 1.5 cm were present on both palms and soles.

Few hyperkeratotic, scaling plaques of variable size were present on palms and plantar aspects of both feet.

Figure 2: Hyperpigmented Macules and Hyperkeratotic Plaques on Palmar Aspect of Hands And Plantar Aspect of Both Feet.
Solitary, ill defined, irregular erythematous mucous patch of size 2 cm into 1 cm were present on soft palate near second left molar.

![Image](https://example.com/image)

**Figure 3:** Erythematous Mucous Patch on Soft Palate

Lymphadenopathy were noted. Right inguinal lymph nodes were enlarged, 2 in number, discrete, non tender, mobile, firm in consistency, non suppurative size 2 into 1 cm and 1 into 1 cm.

Subsequent investigations confirmed the diagnosis of secondary syphilis, his RPR test which was reactive in 1:32 dilution. On further investigation his TPHA was also positive, also HIV 1&2 was reactive. On direct questioning, the patient admitted to have unprotected sexual contact with multiple, professional sex workers in last 8-9 months.

His tests Hep –B – Negative
Hep –C – Negative
Chest X –Ray was normal and ophthalmic, cardiovascular, neurological examination did not reveal any abnormality.

III. Discussion

Early syphilis (recently acquired or within 2 years duration) is the more contagious stage and includes both the primary and secondary forms and the early latent period. Primary syphilis is often asymptomatic and the initial lesion-chancre is extra genital in many cases. Secondary syphilis and latent infection is the most usual forms of presentation in HIV positive patients.

The main reason for the increase in the prevalence is unprotected anogenital and oral sex. Epidemiological changes are related to sexual promiscuity, prostitution, drug abuse, increased travel and migration. New cases occur especially among men who have sex with men and are strongly associated with HIV co-infection.\(^5,6,8\) HIV with syphilis is known to co exist and several areas of interaction are suspected\(^7\).

A high clinical index of suspicion should be maintained to prevent development of late syphilis or tertiary disease characterized by skin, cardiovascular, neurological, liver, spleen, bones or other organs manifestations.

Syphilis is usually diagnosed on the basis of serology test, as detection of treponemes by dark field microscopy tends to be unreliable.

Now treponemal tests such as VDRL, RPR (rapid plasma reagin) are inexpensive, rapid and commonly used for screening. Treponemal test (FTA-Ab or TPHA) are specific antibody test.\(^6,8\)
IV. Conclusion

Because of increasing incidence of syphilis rates the importance of recognizing the early clinical manifestations needs to be re-emphasized. Diagnosis of syphilis in HIV patients is based on clinico-pathological correlation together with serological studies. Screening is simple and inexpensive and treatment is highly effective. Counselling in sexually active group regarding safe and protected sex should be done and encouraged.

References


