

## Atypical Primary Syphilis-A (Rare) Case Presentation

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**Abstract:** A 30 year old HIV patient who is on Anti Retroviral Treatment (ART) for last one year presented with multiple painful genital ulcers for 12 days. There was a history of unprotected sex 22 days back. He was treated elsewhere for last one week with Acyclovir 400 mg thrice daily orally with no improvement. Clinical examination revealed multiple tender ulcers with indurated base but without bleeding on manipulation. Bilateral Inguinal lymph nodes are enlarged and discrete but tender. Routine blood tests are normal. Venereal Disease Research Laboratory (VDRL) Test is reactive in 1:64 dilutions and Treponema Pallidum Haem Agglutination (TPHA) Test is Positive. Patient was put on Doxycycline 100 mg orally twice daily for 14 days and the ulcers healed totally. Repeat VDRL Test 8 weeks after completion of treatment is reactive in 1:8 dilutions and is non-reactive after a further period of 4 weeks. This case is presented for the atypical and relatively aggressive presentation of Syphilis in HIV patients necessitating the need for high clinical suspicion and routine serological (VDRL) testing of all the Patients presenting with genital ulcers.

**Keywords:** Syphilis, HIV Infection, Atypical Manifestations.

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### I. Introduction

Syphilis, known as Great Pox, thought to be on the verge of extinction is once again on a rise due to Human Immunodeficiency Virus (HIV) Pandemic, presenting with atypical and aggressive manifestations with unreliable screening tests posing diagnostic difficulties to the Clinicians making it necessary to have a high clinical suspicion about Syphilis especially in HIV patients. Sir William Osler's saying "Syphilis simulates every other disease. It is the only disease to know. One then becomes an expert Dermatologist, an expert Laryngologist, an expert Oculist, an expert Internist and an expert Diagnostician."<sup>1</sup> holds valid even today.

### II. Case Report

A 30 year old HIV patient who is on Anti Retroviral Therapy (ART) for last one year presented to Sexually Transmitted Diseases (STD) clinic of Department of DermatoVenereoLeprology (DVL) of Guntur Medical college with complaints of multiple painful ulcers on the genitalia for last 12 days. Personal history revealed that he is unmarried and a carpenter by occupation. There is a history of unprotected penovaginal intercourse with a Commercial Sex Worker (CSW) 22 days back. History of intercourse before that is again with a CSW about 18 months back. There is no history of genital ulcer/ growth/ discharge in the past. Patient was treated elsewhere for last one week with Acyclovir 400mg thrice daily orally and Paracetamol 500 mg thrice daily orally with no improvement.

On examination, the patient is conscious and coherent with a blood pressure of 120/70 mm Hg, pulse rate of 88/minute, respiratory rate of 20/minute and a temperature of 98.4 degrees Fahrenheit. Respiratory, Cardiovascular and Gastrointestinal systems are normal on examination. On genital examination, there are multiple ulcers on the penis which are round with clear margins. On palpation, the ulcers are tender but with indurated base and are not bleeding on manipulation. Inguinal lymph nodes are involved bilaterally, discrete but tender. Routine blood tests are normal. Venereal Disease Research Laboratory (VDRL) test is reactive in 1:64 dilutions. Confirmatory test of Syphilis by Treponema Pallidum Haem Agglutination (TPHA) Test is Positive.

As Injection Benzathine Penicillin is unavailable, patient was put on Doxycycline 100 mg orally twice daily along with Ibuprofen 400 mg orally twice daily for one week and examination after one week showed about 60-70% healed ulcers with absolutely no tenderness. Patient was asked to take the same dose of Doxycycline for one more week and the ulcers healed totally and the Inguinal lymphadenopathy also regressed totally.

VDRL test is reactive in 1:8 dilutions after 8 weeks after completion of the treatment and it is negative after a further period of 4 weeks.

### III. Discussion

Syphilis, also known as Great Pox was defined by Stokes as "an infectious disease, due to Treponema pallidum, of great chronicity, systemic from the outset, capable of involving practically every structure of the body in its course, distinguished by florid manifestations on the one hand and years of complete asymptomatic latency on the other, able to simulate many diseases in the field of Medicine and Surgery, transmissible to offspring in man, transmissible to certain laboratory animals, and treatable to the point of presumptive

cure.”<sup>2</sup>Though Syphilis is thought to be on the verge of extinction due to various community health programmes and judicious use of Penicillin, it is again on a rise in this era of HIV Pandemic.

Syphilis is classified into Congenital and Acquired Syphilis. Acquired Syphilis is divided into Early Infectious Phase(diagnosed in first 2 years of infection) and Late Non Infectious Phase(diagnosed after the end of 2<sup>nd</sup> year of infection).Early Infectious Phase is further divided into Primary Stage, Secondary Stage, Recurrent Stage and Early Latent Stage. Late Non Infectious Phase is divided into Late Latent Stage and Tertiary Stage. Cardiovascular Syphilis and NeuroSyphilis are regarded by some as Tertiary Syphilis while by others as Quaternary Syphilis<sup>3</sup>. The incubation period is on average 17-28 days with extremes of 9-90 days<sup>4</sup>. In most cases, the initial lesion is single, starting as a dull red macule which becomes papular,the surface soon erodes giving rise to an ulcer which is rounded, regular and clearly defined in outline. The floor consists of dull red and clean looking granulation tissue with an indurated base. The lesion is painless and non tender. In most cases regional lymph nodes enlarge with in a week of appearance of primary sore.They become bilaterally involved soon and are painless,non tender, discrete and are of rubbery consistency.Commonest mode of transmission is by sexual route and other modes of transmission are through blood and by vertical transmission.

Diagnosis of Primary Syphilis is either by demonstration of the Treponemes by Dark ground microscopic examination or by Serological tests for Syphilis. Serological tests for Syphilis become positive 5-6 weeks after infection or 2-3 weeks after the appearance of primary chancre.<sup>5</sup> Serological tests remain the main stay of diagnosis and are of two types.1.Non specific Serological tests like VDRL Test which are used for screening and 2.Specific Serological tests like FluorescentTreponemal Antibody Absorbent (FTA-ABS) Test and TPHA Test.Biological False Positive tests to VDRL may occur in Bacterial or Viral Pneumonias, Malaria, Leprosy and Autoimmune diseases which can be ruled out by confirmatory tests. The TPHA test is more sensitive confirmatory test than the FTA-ABS test except in the third and fourth weeks of infection and is also more specific.<sup>6</sup>

HIV co-infection may alter the natural course of Syphilis and modify it's clinical presentation thus creating a serious problem for the Clinicians. Increased severity of clinical manifestations and painful rather than painless ulcers due to secondary infection and multiple rather than single ulcer with short incubation period and short latent period were noted in Syphilis in HIV patients.<sup>7</sup> The specificity of non Treponemal serological tests for Syphilis may be compromised in HIV infected persons. Very high titres of VDRL, greater than 1:64 have been reported in HIV infected persons without Syphilis. However specific serological tests for Syphilis are accurate in majority of patients with Syphilis and HIV co-infection.<sup>8</sup>

According to WHO guidelines, the recommended treatment for Early Syphilis is Benzathine Benzyl Penicillin 2.4 million IU by intramuscular injection as two equal doses at separate sites in a single session.Alternate regimens are Procaine Benzyl Penicillin 1.2million IU daily by intramuscular injection for 10 consecutive days or in non pregnant patients either Doxycycline 100 mg orally twice daily for 15 days or Tetracycline500 mg orally 4 times daily for 15 days.

#### **IV. Conclusion**

This case was presented mainly to highlight that Syphilis may manifest in any form and sometimes aggressively with shorter incubation period especially in HIV patients and a high clinical suspicion is needed to diagnose it and it may be necessary for regular screening of all the genital ulcer patients for Syphilis testing as it is a highly manageable disease which may lead to catastrophic complications if not diagnosed early and treated early.

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