

Primary Syphilis, Inoculation Chancre and their Differential Diagnoses

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Abstract

Syphilis is a sexually transmitted disease caused by *Treponema pallidum*. Its varied clinical manifestations make it difficult to diagnose. We present the cases of an adolescent with right submaxillary adenopathy and lesion in the lower lip compatible with inoculation chancre and its possible differential diagnoses.

Keywords: Primary Syphilis; Inoculation Chancre; Sexually Transmitted Diseases; *Treponema Pallidum*; Lymphadenopathy

Abbreviation

STD: Sexually Transmitted Disease

Introduction

Syphilis is an STD caused by a bacterium called *Treponema pallidum*. Its main site of inoculation is the genital organs, as well as the areas of the oral cavity and region.

The objective of this work is to present the case of an adolescent with oral syphilitic lesion and submaxillary adenomegaly, establish the different differential diagnoses and show the importance of the early diagnosis since thus, the effectiveness of the treatment strategy increases not only for the patient but also for the sexual contacts of the same and thus avoid more contagion.

Clinical Case and Discussion

A 14-year-old adolescent who consults for right submaxillary adenomegaly. The patient lived with his family in Greater Buenos Aires, Argentina and attended 3rd year of high school. He reported having started sexual intercourse approximately 4 weeks prior to the onset of symptoms, not having used strategies to prevent sexually transmitted disease. At the time of the consultation, he looked in good general condition, the only positive findings being the presence of a right submaxillary adenomegaly, of hard consistency, painless, without perilesional erythema, of approximately 3 cm x 3 cm. He also presented an adenopathy in the left laterocervical region, of smaller size and

consistency. On the lower lip, a single, painless, defined-edged, pink and dry lesion was observed (Figure 1). The patient reported that the lesion on the lip had coincided with the appearance of submaxillary adenomegaly. He denied having suffered signs or symptoms of systemic involvement. Vital signs at the time of the physical examination were normal, as were anthropometric weight and height data. It also had adequate immunizations according to the national calendar. The serological panel was negative for HIV, Hepatitis B (HbsAg - Anticore), Hepatitis C, and *Toxoplasma gondii*, evidencing past infection of cytomegalovirus and Epstein-Barr virus. Reactive treponemal and non-treponemal tests (VDRL) confirm the diagnosis of primary syphilis and in accordance with national standards, receive treatment with Penicillin G Benzatinica 2,400,000 IU/IM (single dose). The patient reported suffering from a mild Jarisch-Herxheimer reaction, characterized by fever (axillary T: 38.1°C), which subsided spontaneously. Five months after receiving the treatment, it was possible to verify remission of the adenomegaly and in the process of healing the lip lesion (Figure 2). The VDRL was non-reactive, with the persistence of the positivity of the treponemal test (Table 1). Counseling for the prevention of sexually transmitted infections is carried out.



Figure 1: Lower lip injury.

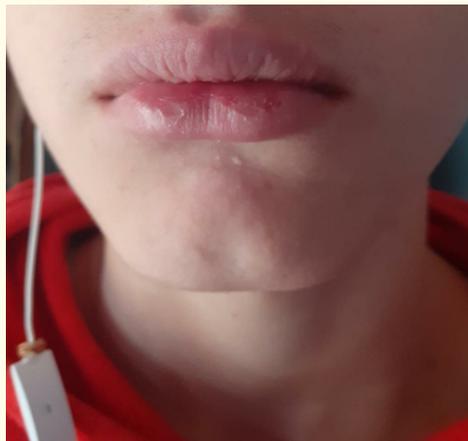


Figure 2: Injury in resolution after treatment.

Date	Ho Chi Minh City	VDRL	VIH
Initial	Reagent (17.55)	4 dils	Non-Reactive
5 months later	Reagent (15.44)	Non-Reactive	Non-Reactive

Table 1: Serological profile of the patient.

Primary syphilis and its differential diagnoses

In primary syphilis, the main clinical manifestation is the inoculation chancre, characterized by being an ulcerated, painless, usually unique lesion that is observed 2 to 3 weeks after contact with a person with an infecting lesion. In men, penile localization is the most frequent, but it can be located anywhere else and go unnoticed, as it happens in women with its vaginal or cervical localization. The primary lesion is usually accompanied by regional adenomegaly. Without treatment, the primary lesion resolves spontaneously in 3 to 6 weeks [1]. The treatment aims to eliminate treponema, prevent the development of complications and prevent the spread of the disease. In primary, secondary, and early latent syphilis (< 1 year) the treatment of choice is Penicillin G Benzatinica 50,000 IU/kg/IM (Maximum 2.4 million) in a single dose, applied in the super external quadrant of the gluteal region [2]. The Jarisch-Herxheimer reaction is estimated to occur due to a rapid reduction in a load of treponemes and can occur in 50% and 70% respectively of primary and secondary syphilis treatment [3].

Among the different differential diagnoses most frequently to think in front of a patient who consults for submaxillary adenopathy is the suppurative adenitis by *Streptococcus pyogenes*. It can be attributed to the spread of an underlying skin focus (impetigo) or subsequent to upper respiratory tract infection (coryza or pharyngitis). The affected nodes are usually tense, and hot, with perilesional erythema and are painful on palpation. Systemic involvement is characterized by high fever and signs of toxicity.

In older children and adults, pharyngitis is a common manifestation of the primary infection caused by the herpes simplex virus, being clinically indistinguishable from other viral or bacterial infections.

Although generalized lymphadenopathy is common in Epstein-Barr virus infection, cervical adenitis is prominent and is present in 90% of children, usually bilateral. Moderate splenomegaly occurs in 75% of patients.

Nodal tuberculosis is the most common extrapulmonary form in children. Inguinal, epitrochlear, or axillary lymphadenopathy is usually associated with cutaneous or skeletal tuberculosis and occurs rarely in children. Systemic involvement is absent and only low-grade fever can be seen. The epidemiological history of exposure to a case of tuberculosis can be decisive in establishing the diagnosis [4].

Conclusion

This case demonstrates the importance of maintaining the suspicion of syphilitic infection when a patient has lymphadenopathy and an oral lesion, being fundamental the recognition of the different clinical forms in order to make an opportune diagnosis and treatment, avoiding the possible sequelae and the contagion of other people.

Conflicts of Interest

None to declare.

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