Multiple syphilitic chancre on the vulva and on both breasts: case report

Cancro sifilítico múltiplo em vulva e em ambas as mamas: relato de caso

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ABSTRACT
Multiple syphilitic chancre is not frequent in the immunocompetent patient. On the other hand, extragenital lesions are more common in the mouth and anus, and it is rare to find them in the breast. We report the case of an 18 year-old patient who attended the consultation with three syphilitic chancres: one on the vulva and one on each areola.
Keywords: syphilis; chancre; areolas.

RESUMO
O cancro sifilítico múltiplo não é frequente no paciente imunocompetente. Por outro lado, as lesões extragenitais são mais comuns na boca e no ânus, sendo raras encontrá-las na mama. Apresentamos o caso de uma paciente de 18 anos que compareceu à consulta com três cancros sifilíticos: um na vulva e um em cada aréola.
Palavras-chave: sífilis; cancro; aréolas.

INTRODUCTION

Syphilis is a systemic infectious disease, usually of sexual contagion, whose protean clinical has made it known in the history of medicine as "the great impostor". It is produced by a spirochete, *Treponema pallidum*, subspecies *pallidum*.

The transmission of the disease occurs by direct contact with wet lesions (chancre, *Condylomata lata*) present in the primary and secondary stages. Spirochetes can enter through intact mucous membranes or skin with abrasions. Blood is infectious during episodes of bacteremia.

Among the contagion routes to consider, the sexual activity is the main one, and equally involves genital, oral or anal sex. A patient is more infectious in the early stages of the disease. About 30% of casual sex partners and 90% of stable partners of an infectious individual acquire the disease. Koumans et al.[1] reported that 31% of patients with early syphilis related having two or more sexual partners in the previous month, and 8% exchanged money or drugs for sex in the previous three months.

The association with other sexually transmitted infections (STI) is not a minor problem and forces the search of all of them. Chesson et al.[2] estimated that 25% of all reported cases of primary and secondary syphilis in 2002 in the United States were manifested in people infected with human immunodeficiency virus (HIV). When compared to the general population, the incidence in these patients was considerably higher.

The region with the highest syphilis rate worldwide is Latin America and the Caribbean[3]. The World Health Organization (WHO) has estimated that, of the 12 million new infections that occur annually worldwide, three million are precisely in Latin America and the Caribbean.

The primary lesion, the chancre, develops at the site of inoculation and begins as a reddish macula, rapidly progressing to a papule, usually unique, round or oval, painless, with smooth and well-defined borders. Its size usually reaches between 10 and 20 mm, although it can be smaller. In patients infected with HIV, the lesions can be multiple and reach larger diameters. A few days later, the chancre ulcerates, and shows an over-elevation and induration of the edges, of cartilaginous consistency. Except that it is overinfected, the lesion looks clean and remains painless. Unilateral or bilateral regional adenopathy is observed. Usually, the lymph nodes are painless, enlarged and not suppurating. The diagnosis is difficult in women, since the chancre is located in the vaginal or cervical mucosa and goes on unnoticed. The extragenital location (most frequently oral or anal) is the most infected, and the lesion can be painful and necrotic. The chancre evolves spontaneously to healing within two to six weeks and usually leaves no trace. The adenopathy may persist after the disappearance of the chancre.

As mentioned, the syphilitic chancre is usually a single lesion, although in certain cases it can be multiple, depending on the amount of the inoculum, the possibility of different entrance doors occurring simultaneously, and even due to autoinoculation before the tenth day of infection. The finding of multiple chancres in immunosuppressed individuals is more frequent, particularly in patients with HIV (70%, compared to 30% of HIV negative patients)[4]. Generally, multiple chancres appear close to each other in the genital area, and more rarely coexist in other areas. The extragenital location of the chancre varies between 2 and 31% of cases[5]. It can affect any site, the most frequent extragenital location, being the mouth (between 40 and 70%) with approximately one fifth of them on the lips[6]. The location in the mammary region (nipple or areola) of the primary syphilitic lesion is rather rare[7]. Less common is the possibility of finding both breasts commitment.

We present a case of multiple syphilitic chancre located on the vulva and both breasts.

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CASE REPORT

We present the case of an 18-year-old white patient, nulliparous, who attended the consulting room due to a week-long lesion on the vulva, located in the middle third of the left major lip. She also reported an injury in right breast areole and another one in left breast areola, both painful that arose at the same time as the vulvar lesion.

Background: menarche: 13 years of age. Menstrual rhythm: 5/30. Start of sexual relations: 15 years of age. Number of sexual partners: two (male). Contraceptive method: condom. Habits: tobacco (four to five cigarettes/day) and occasional consumption of marijuana. Family gynecologic background: unknown. Breast pathology antecedents: denies. History of STI: denies.

On examination, in the middle third of the left major lip it was observed an ulcerated lesion, rounded, approximately 12 to 15 mm in diameter, with raised and indurated edges, not painful, which according to the patient dates from a week of evolution (**Figure 1**). The left major lip was also discreetly increased in thickness in relation to the right.

Concomitantly to the vulvar lesion, two similar ulcers appeared in both areolas, approximately 8–10 mm in diameter, with raised and indurated, but painful edges (**Figures 2 and 3**). There were no palpable axillary adenopathies.

A microbiological study of the vaginal contents was carried out, finding a habitual microbiota. Routine serologies were requested for the diagnosis of STI, and the following results obtained:

- serology for HIV: negative;
- serology for hepatitis B and C: negative;
- Venereal Disease Research Laboratory test (VDRL): positive 1/32 dilutions, with positive *Treponema pallidum* particle agglutination assay (TPPA).

Treatment indicated was two doses of penicillin benzatine 2,400,000 IU. The couple was called for evaluation and serology requested. The first dose of the antimicrobial was applied.

After seven days of treatment, the patient showed up to receive the second dose and underwent a clinical examination. An increase in the size of the vulvar lesion was observed, although it remained painless (**Figure 4**), and there was a slight improvement in the evolution of the lesions located in both breasts (**Figures 5 and 6**).

A week later, the patient returned for clinical evaluation of the lesions, and it was observed that the lesion in the vulva increased even more in size, becoming painful when rubbing on the underwear (**Figure 7**), while the lesions located in both breasts had almost disappeared (**Figure 8**).

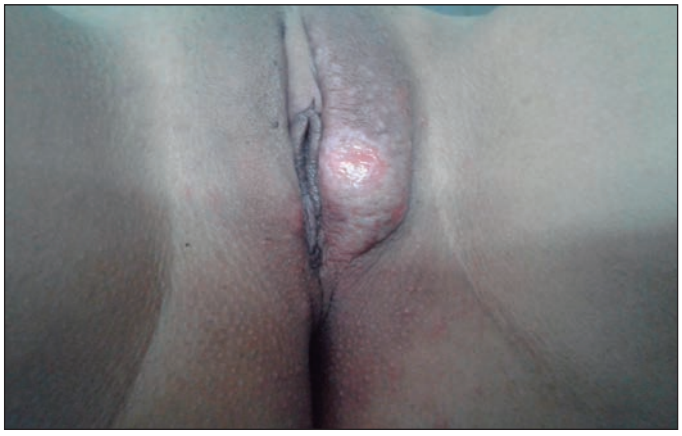

Figure 1 – Left major lip ulcerated lesion.

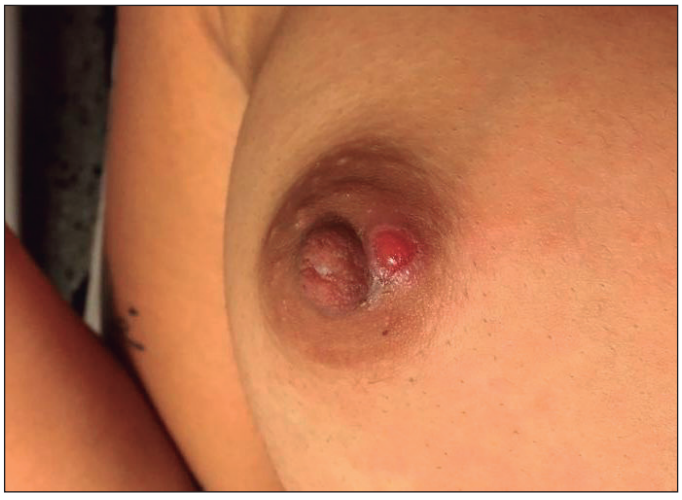

Figure 2 – Right breast lesion next to nipple.

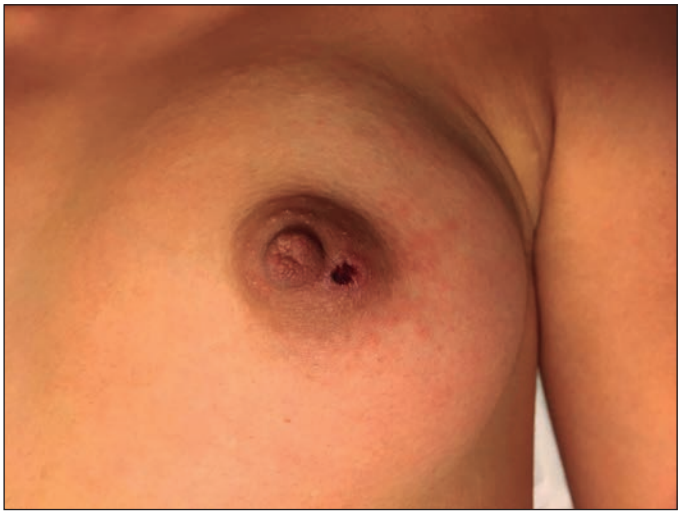

Figure 3 – Left breast lesion next to nipple.

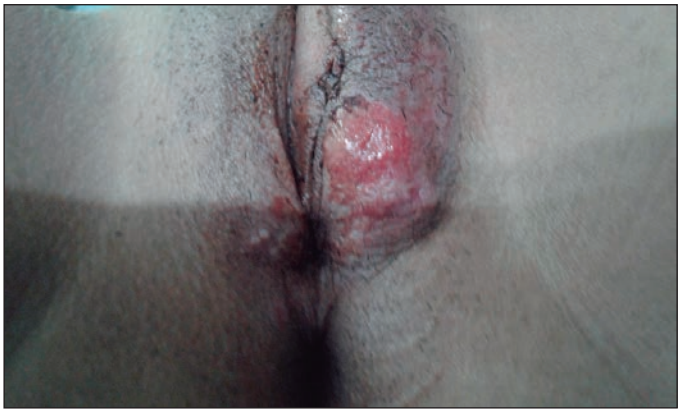

Figure 4 – Left major lip lesion: first week of treatment.

The patient was examined the following week, and it could be noted that the lesion on the vulva began to evolve towards healing, and the pain also disappeared (**Figure 9**).

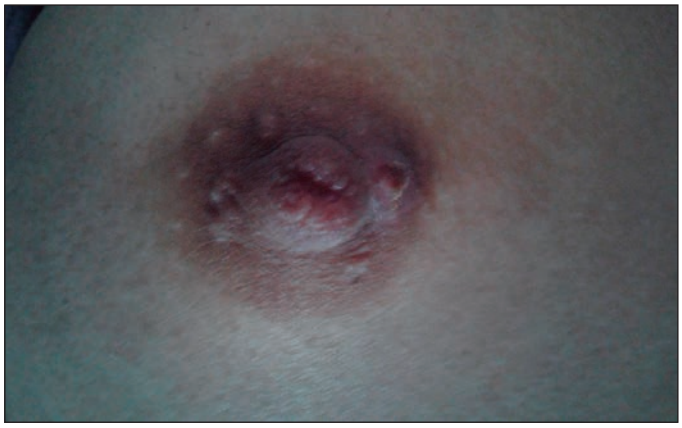

Figure 5 – Right breast lesion: first week of treatment.

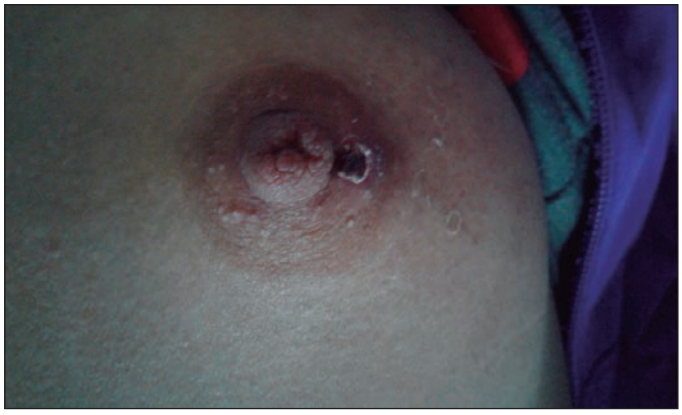

Figure 6 – Left breast lesion: first week of treatment.

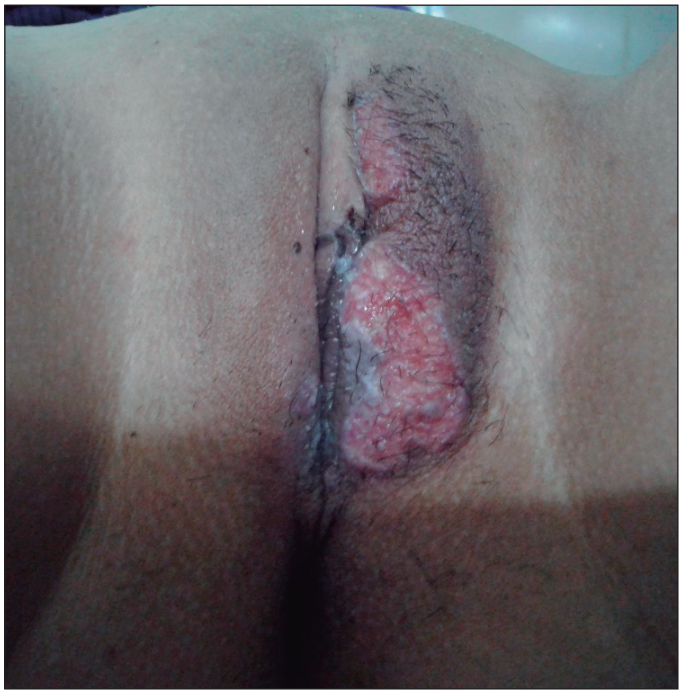

Figure 7 – Lesion of vulva: second week of treatment.

Regarding the couple, there were no clinical lesions, but the VDRL was positive, with 1/128 dilutions and positive TPPA. Three doses of benzathine penicillin were prescribed for diagnosis of syphilis of unknown duration.

It is important to highlight that patient was examined one month later for clinical control, and a total resolution of the primary syphilitic lesion was observed, but a herpetic lesion on the right major lip arose (**Figure 10**), demonstrating once more the usual association with STI.

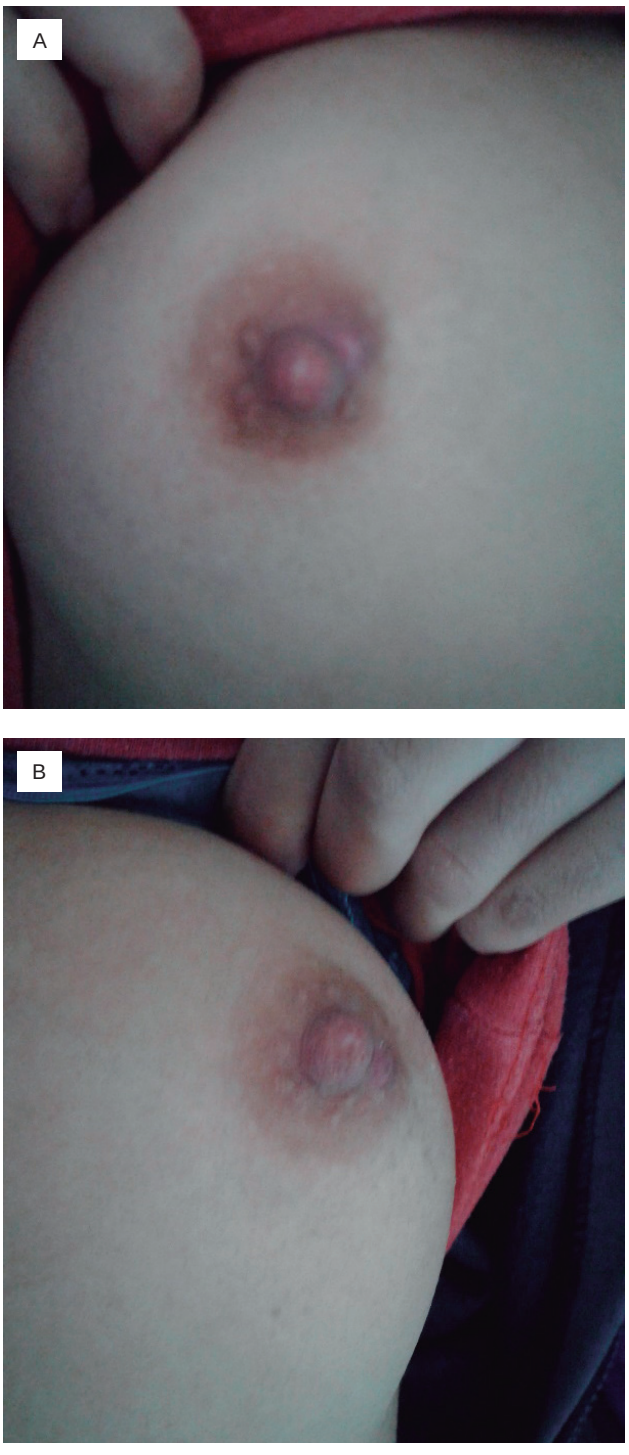

Figure 8 – Lesions of both breasts: second week of treatment.

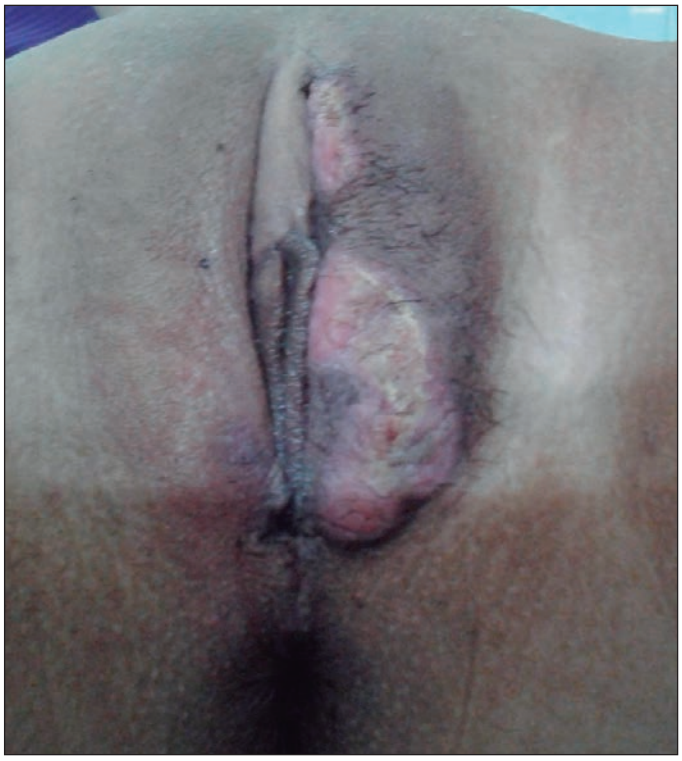

Figure 9 – Vulvar lesion evolution.

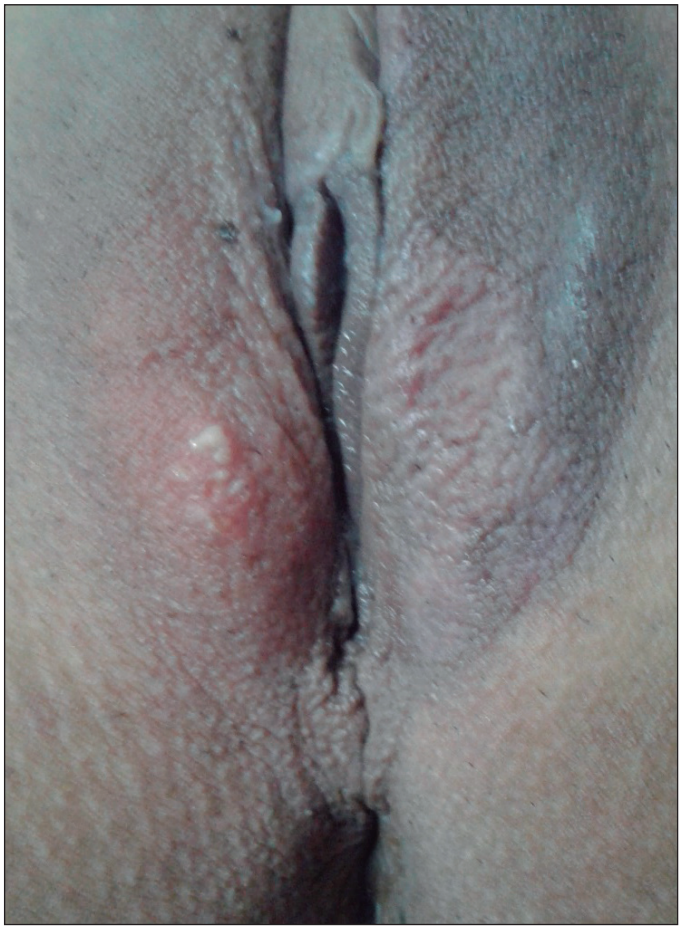

Figure 10 – Herpetic lesion on the right major lip.

DISCUSSION

Classically, the syphilitic chancre is described as a unique ulcerated lesion, painless, with indurated borders, usually of genital location. However, the presence of more than one primary lesion is possible, being described in the medical literature up to 19 lesions in a patient[8], and even the diagnosis of multiple chancres without involvement of the genital area is mentioned[9].

Extragenital localization can occur on any mucosa and on areas of skin that present continuity. The involvement of the mouth, and particularly of the lips, constitutes the most frequent extragenital infection, sometimes manifesting itself with extensive oral ulcers[10].

The primary lesion in the fingers of the hand is rare, although it is preferably described in health professionals, who may contract the disease accidentally[11]. Extragenital involvement in less frequent regions, such as neck or thorax[12], are mentioned as rare cases in the medical literature.

Concerning the involvement of nipple or areola, there are not many cases published. Lee et al. mention two cases of male patients diagnosed with syphilitic chancre as a single lesion in the nipple[7]. Fukuda et al., on the other hand, presented the case of a 29-year-old male with a multiple primary lesion involving the lip, penis and areola-nipple[13]. We have not found in the bibliography the commitment of both areolas in the primary disease.

Conflict of interests

The authors declare no conflict of interests.

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Received on: 11.14.2017
Approved on: 12.29.2017