a 14 días o azitromicina (2 g por día), que pueden ser utilizados en pacientes alérgicos a la penicilina. En algunos pacientes es necesaria la desensibilización a la penicilina. Además, los periodos extensos de latencia pueden dar la falsa expectativa de tratamiento exitoso, por este motivo es importante también un seguimiento serológico para la confirmación del éxito del tratamiento, que ocurre cuando el título baja cuatro veces respecto del título inicial.[16]

La incidencia de esta enfermedad, al igual que la de otras enfermedades de transmisión sexual (ETS), ha aumentado debido al VIH: ha sido descrita una prevalencia de hasta el 70% de esta afección en pacientes portadores del VIH. Es por ello que, ante resultados positivos, es necesario sugerirle al paciente que realice otras pruebas serológicas de enfermedades de transmisión sexual (como VIH, hepatitis B y hepatitis C).[17]

CONCLUSIÓN

Las lesiones bucales de las enfermedades venéreas son muy frecuentes. Sin embargo, son subdiagnosticadas debido a la inexperiencia de los profesionales sobre conceptos básicos de medicina bucal. Es importante recordar que a esta patología se la conoce como «la gran simuladora», y que las lesiones bucales tienden a confundirnos con otro tipo de lesiones. El diagnóstico precoz, en conjunto con un tratamiento oportuno, puede evitar la transmisión de la enfermedad y así prevenir sus complicaciones.

En la actualidad, es una enfermedad que está en un incremento exponencial, se le considera una emergencia epidemiológica, de la cual cada vez estamos viendo más casos, cuando se creía anteriormente que era una patología erradicada. Necesitamos fundamentalmente concientizar a la población y educar respecto a los diferentes métodos de protección en las relaciones sexuales.

También creemos que es importante la capacitación de los colegas profesionales de la salud en conocimientos de medicina oral y estimular el trabajo interdisciplinario.

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Clinical case

Syphilis: the great simulator. A clinical case report

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ABSTRACT

Objective: In this report we describe a clinical case of secondary syphilis located in the oral cavity. **Case report:** A 62-year-old male patient, resident of the city of Cordoba, Argentina, was referred to the Stomatology Service of the Faculty of Dentistry, at the National University of Cordoba, with oral lesions of three weeks of evolution and presumed diagnosis of aphthous stomatitis. Clinically, multiple lesions were observed in the mouth in the lower labial mucosa, the retro-commissural area, the ventral surface of tongue, and the posterior third of the soft palate and tonsils. The lesions were painful and looked like white plaques of opalescent appearance compatible with syphilitic papules. The patient also showed bilateral positive submandibular and occipital adenopathy, which was painless. The presumptive diagnosis was secondary syphilis. Serological studies were requested confirming the diagnosis. The patient was referred to the Infection Service at Rawson Hospital, where he received the appropriate treatment. **Conclusions:** Oral lesions due to venereal diseases are frequent but are underdiagnosed because of the inexperience of professionals on basic concepts of oral medicine. Syphilis is known as «the great simulator», so oral lesions caused by this pathology are often confused with other types of lesions. Early diagnosis and timely treatment can prevent the transmission of the disease and hence its complications.

Keywords: Syphilis, *treponema pallidum*, mouth.

BACKGROUND

Syphilis is a sexually transmitted disease caused by the spirochaete bacterium *Treponema pallidum*. Its occurrence in the oral cavity will depend on two factors, namely the virulence of the bacterium and the systemic immune response of the host. At its initial stage, it may appear at the level of the oral mucosa with ulcerative lesions as a result of direct contact with infected patients.[1]

Syphilis is transmitted by sexual intercourse, across the placenta, by accidental contact with open mouth injuries, by blood transfusion when the donor is at an early stage of the disease, and also by the lack of basic biosecurity standards on the part of the professional in the care of patients.[2] The pathology shows varied clinical manifestations that mimic other diseases,

which hinders and delays the correct diagnosis and treatment. Hence, syphilis is known as «the great simulator».[3]

Syphilis progresses through different stages. It can be congenital (early or late), acquired early (primary and secondary), or acquired late (tertiary). Congenital syphilis is caused by mother-to-child contagion in intrauterine life, and may cause abortions, death of the fetus after the fifth month of gestation, and/or accompanied manifestations in the newborn, such as Parrot's pseudoparalysis, Hutchinson's teeth, saddle nose, sabre shins, olympic forehead, perioral fissures, and syphilitic rhagades.[2,4]

Primary syphilis comprises the so-called syphilitic primary complex, consisting of chancre and its satellite adenopathy, and appears at the inoculation site. One of the most common extragenital locations of the primary chancre is the oral cavity.[5] The secondary stage of syphilis begins between the second and eighth week of infection, with erythematous macular oral lesions, opaline plaques, papules, fissures, syphilitic condylomas, lingual depapillation, angular cheilitis, and dysphonia.[6,7] After this period, the patient enters the latency stage, during which diagnosis can only be made by serological tests. This period is divided, in turn, into early latent and late latent.

Tertiary syphilis involves the occurrence of clinical manifestations, which develop in more than a third of untreated patients and whose pathological basis are alterations in the *vasa vasorum* (syphilitic aortitis, aortic aneurysm, coronary stenosis), neurolues, and characteristic lesions called gummas.[8,9]

Traditionally, there are two groups of tests for the diagnosis of syphilis, i.e, direct and indirect tests. The first are by visualization of *Treponema* by dark field microscopy and by direct fluorescent antibody (DFA). Indirect tests are divided into nontreponemal tests, such as VDRL (venereal disease research laboratory test) and RPR (rapid plasma reagin) and treponemal tests such as FTA-ABS (fluorescent treponemal antibody absorption) or MHA-TP (microhemagglutination assay for *T. pallidum*). The VDRL method is the most recommended when applied to cerebrospinal fluid or blood serum; it is also the most economical and is readily available in the laboratories of primary health care units.[10,11]

The skin and mucous membranes are active participants from the onset of syphilis. Its rapid recognition and correct treatment are currently the main tools to prevent spread, since it is estimated that between 16% and 30% of individuals who have some form of sexual contact with patients with active lesions during the primary or secondary stages of the disease (infecting periods) will acquire it within 30 days of contact.[12,13]

On the other hand, the time of appearance of the secondary stage will depend on two factors: the virulence of the Treponema and the systemic response of the host. From a pathological point of view, the skin-mucous signs of secondary syphilis could be interpreted as the local reaction of tissues very susceptible to the massive accumulation of treponemas arrived by the blood stream.[14]

CLINICAL CASE

A 62-year-old male patient, resident of the city of Cordoba, Argentina, was referred from the Stomatology Service because of the presence of sores in the mouth with presumptive diagnosis of aphthous stomatitis. Relevant data of pathological history included eye surgery by cataracts in 1967, exposure to heat sources due to his occupation as a gasman, active smoking from the age of 18 to the present (20 cigarettes per day, totaling 321,200 smoked cigarettes), daily consumption of alcohol (red wine) at dinner, and occasional consumption of mate and other hot infusions.

On clinical examination, we observed multiple lesions in the oral cavity located in lower labial mucosa, retro-commissural area, tongue's ventral surface and posterior third of soft palate and tonsils. The patient also showed painful white plaques of opalescent appearance compatible with syphilitic papules with three weeks of evolution, as well as painless bilateral positive submandibular and occipital adenopathy *(Figures 1 to 4)*. The presumptive diagnosis was secondary syphilis.

Complementary serological studies including quantitative VDRL test in dilutions (dils) and specific treponemal test (chemoluminescence) were requested. Hepatitis B, C, and HIV tests were also requested to extend the protocol for sexually transmitted infections (STIs). VDRL yielded a value of 512 dils and chemoluminescence of 20.92 ($\geq$ 1 is a positive result), while the other serological tests were nonreactive. The patient's partner was also asked to undergo the respective serological studies resulting in a VDRL 1/1 dils and negative for the other tests. On stomatological examination she did not show clinical lesions and she also received the corresponding treatment.

The patient was referred to Rawson Hospital's Infection Service for appropriate treatment, where he was medicated with penicillin G benzathine, 2,400,000 IU/dose intramuscular. At 14 days post-treatment, the

patient was monitored with a noticeable improvement in lesions and virtual remission. Currently the patient must undergo serological testing within three months of the start of treatment.

DISCUSSION

Oral lesions from venereal diseases are common but are underdiagnosed due to the inexperience of professionals on basic concepts of oral medicine. In addition, as «the great simulator», syphilis causes oral lesions that can be confused with aphthae, leukoplakia, thrush, and lesions associated with chronic oral mechanical irritation, among others. The diagnosis of syphilis is based on clinical data confirmed by laboratory tests. The role of anamnesis is fundamental for obtaining a presumptive diagnosis, given the need to investigate about the patient's previous intra- and extraoral lesions, such as inoculation chancre.[15]

Secondary syphilis presents with manifestations in areas of mucosa and skin. Skin rashes develop as pink or red symmetrical maculae that can evolve to papules or as flat genital condylomas, diffuse alopecia, and lesions in palms and soles. The oral manifestations of the disease are variable. Commonly, highly contagious, slightly elevated spots or plaques appear, covered by white or grayish pseudomembranes. There may be as well fissures, condylomas, and erythematous and atrophic areas, so a rapid diagnosis decreases the risk of transmission. Serological tests in combination with a full clinical examination are critical to the diagnosis of the disease. Pre-diagnosis empirical treatment may mask or hinder syphilis diagnosis and promote its dissemination. The first-line treatment is with penicillin G benzathine, 2,400,000 IU/dose intramuscular in immunocompetent patients, and as alternatives doxycycline (100 mg every 12 hours) for 14 days, intramuscular ceftriaxone (1 g every 24 hours) for 10 to 14 days, or azithromycin (2 g per day), which can be used in patients allergic to penicillin. Penicillin desensitization is necessary in some patients. In addition, extended latency periods can give the false expectation of successful treatment, so serological follow-up is also important for confirmation of treatment success, which occurs when a 4-fold decrease in titer is observed.[16]

The incidence of this syphilis, as well as that of other sexually transmitted diseases (STDs), has increased due to HIV infection. A prevalence of up to 70% of syphilis has been found in HIV-positive patients. That is the reason for suggesting the performance of other serological tests for sexually transmitted diseases (such as HIV, hepatitis B, and hepatitis C) when the patient obtains positive results for syphilis.[17]

CONCLUSION

Oral lesions from venereal diseases may be underdiagnosed due to the inexperience of professionals on basic concepts of oral medicine. These lesions may be confused with those caused by other diseases. An early diagnosis and timely treatment can prevent the transmission of syphilis and hence its complications.

Today, the prevalence of syphilis is increasing exponentially. It is considered an epidemiological emergency, and we are seeing more and more cases, even though it was previously believed to be an eradicated pathology. We thus need to raise public awareness and promote education about the different barrier methods for sexual relations.

Lastly, we believe that it is important to train fellow health professionals on oral medicine basics as well as to stimulate interdisciplinary work.

Conflict of interest: The authors declare that they have no financial or personal conflict of interest related to this study.

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