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CASE AND RESEARCH LETTER

[Translated article] Ocular Syphilis Diagnosed After Evaluation of Key Skin Signs: A Case Report

Sífilis ocular, cuando la piel es clave. Presentación de un caso clínico

To the Editor:

Syphilis is a sexually transmitted disease caused by the spirochete *Treponema pallidum*. If left untreated, it classically evolves in 4 stages: (1) primary syphilis, characterized by lesions of the skin or mucosa at the site of inoculation; (2) secondary syphilis, caused by the pathogen spreading through the blood; (3) latent syphilis; and (4) tertiary syphilis, characterized by the cellular immune response to a low number of pathogens in specific organs.[1–3] The incidence of syphilis has been increasing in our setting in recent years, especially among men who have sex with men (MSM).[2–6] This growing number of cases allows us to observe rare manifestations of the disease, such as ocular syphilis.[2,6,7]

We report the case of a 22-year-old man with no relevant personal history, who visited our department with asymptomatic lesions on the palms and soles that had appeared 3 weeks earlier. He reported having suffered from a painful self-limiting anal lesion some months earlier, which he attributed to trauma during anal sex without a condom. The examination revealed yellowish-red hyperkeratotic papules on the palms and soles, suggestive of a syphilitic rash (Fig. 1). Serology was requested in light of a suspected diagnosis of secondary syphilis; treatment was not instated while awaiting results at the express request of the patient.

Ten days later, the patient visited the emergency department with a spot in the temporal region of the visual field of the right eye. The ophthalmologic examination revealed right unilateral papilledema, with no chorioretinal abnormalities, and with normal photomotor reflexes, confrontation visual field test, visual acuity, and neurological examination.

Requested serology was positive for RPR at a dilution of 1/64 and FTA-ABS; HIV, HBV, and HVC serologies were negative. Blood tests, CT and NMRI, fluorescein angiography, and a lumbar puncture were performed, with normal results, including VDRL and PCR for *T. pallidum* in cerebrospinal fluid (CSF).

A diagnosis of ocular syphilis was established and antibiotic treatment with 2 g of intravenous (IV) ceftriaxone for 14 days was instated immediately. Recovery of sight was slow and prednisone was therefore added at 60 mg/d in a descending dose over 2 months; sight was fully recovered and maintained thereafter. Follow-up serology at 6 months revealed a negative RPR test.

Discussion

Ocular manifestations of syphilis are very rare and are only observed in between 1% and 14% of affected patients, most of whom are MSM, HIV-positive, or immunodepressed.[1,5,6,8,9] Ocular manifestations may appear at any stage of the disease and any segment of the eye may become involved,[2,6,9] including different types of involvement of the optic nerve.[2,6,9,10] In different series, papillitis is the most common[2,6] or second most common manifestation of ocular syphilis, after uveitis.[9] This is why it forms part of the differential diagnosis of papilledema, together with anterior ischemic optic neuropathy, central retinal vein occlusion, papillophlebitis, sarcoidosis, and other entities.[10] In some patients, it constitutes the first reason for the consultation, as the primary and secondary cutaneous manifestations have gone unnoticed.[6,7] It is generally asymptomatic, although it may be associated with eye pain, reduced visual acuity, or defects in the visual field.[8]

The diagnosis is based on the presence of ocular signs or symptoms, together with abnormalities in the CSF suggestive of neurosyphilis,[1,2,5,10] as the eye is considered to be an extension of the central nervous system (CNS). Some authors, however, defend the need to initiate empirical treatment for ocular syphilis in the event of clinical ophthalmologic findings of recent onset in patients with active syphilis at any stage.[7] This is based on several published studies that show the presence of *T. pallidum* in the CNS with no cell abnormality and with negative CSF-VDRL,[7,9] particularly when the only involvement is ophthalmologic.[1,10]

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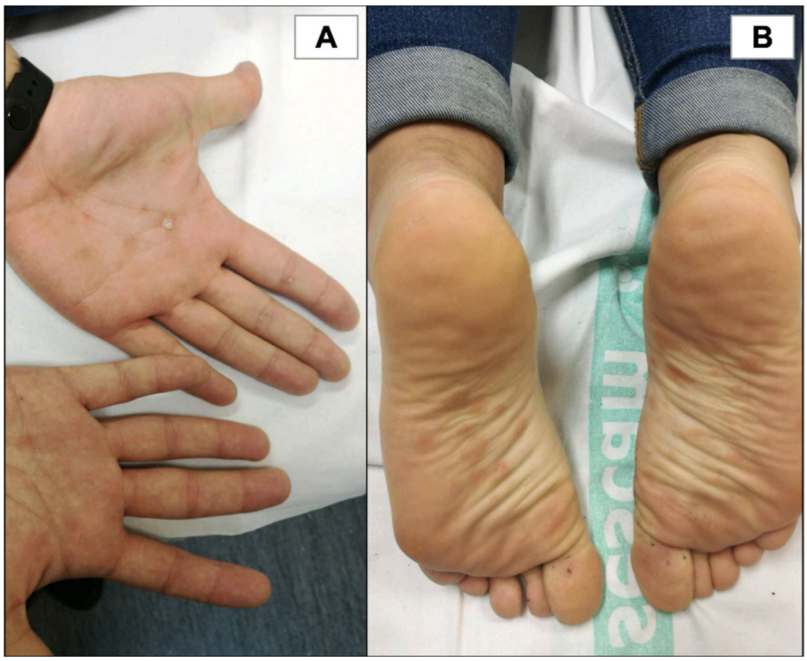

Figure 1 Syphilitic rash. Flat, yellowish-red, hyperkeratotic papules on the palms of both hands (A) and on the soles of both feet (B).

The treatment of choice, according to CDC 2015 guidelines, consists of IV administration of aqueous penicillin G for 14 days, at a dosage of 24 million IU/24 h, in a continuous infusion or spread over 6 doses 4 h apart.[1–3,5,9] This treatment regimen requires admission to hospital and, for this reason, although treatment with 2 g of IV ceftriaxone in a single dose every 24 h for 14 days is considered second-line treatment,[1,9] its use is becoming increasingly widespread, as it is more compatible with the social and working lives of the patients. Some authors recommend the addition of systemic corticosteroids to the antibiotic treatment, especially in cases in which the expected improvement with antibiotherapy is not seen.[2,9] The prognosis is generally favorable if appropriate and early treatment is instated.

In our patient, other possible causes of the papilledema were reasonably excluded, and the final diagnosis of ocular syphilis was established despite the fact that none of the classical abnormalities due to neurosyphilis were found in the CSF. DNA of *T. pallidum* was not detected using PCR, although some authors advise against using this technique, as overall sensitivity is low—between 50% and 80% in peripheral blood for secondary syphilis and between 40% and 70% in CSF for the diagnosis of neurosyphilis.[4] The maintained clinical improvement with antibiotic treatment supports the diagnosis.

In conclusion, we must pay attention to the systemic symptoms of patients diagnosed with syphilis, as they may correspond to atypical manifestations with potential complications if appropriate treatment is not instated in time. While there are no recommendations regarding performing an ophthalmologic examination on all patients with the disease, we believe it is appropriate to inform patients of the importance of visiting an ophthalmologist if de novo visual abnormalities present.

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Conflicts of Interest

The authors declare that they have no conflicts of interest.

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