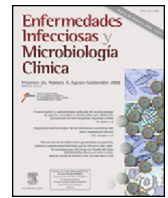




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Diagnosis at first sight

Paint ulcers?

¿Úlceras por pintura?

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Case report

This was a 55-year-old man with a previous medical history of allergy to penicillin, arterial hypertension, dyslipidaemia and coronary heart disease, who attended the Accident & Emergency department with a 48-h history of painless lesions on his penis, which had not improved despite the application of mupirocin. The patient was otherwise asymptomatic.

Physical examination revealed eight superficial ulcers with a fibrin base and raised borders, with a hard consistency to the touch, on the patient's penis (Figures 1–3)). In addition, bilateral inguinal lymphadenopathy was palpable. The patient associated the lesions with the use of chemical products in his work, especially paint, as he did not wash his hands properly when urinating. He reported a stable heterosexual relationship for more than 20 years, denying sexual relations outside of that. He did confirm unprotected sex with his usual partner, who presumably did not have any similar lesions. He denied any previous history of sexually transmitted infections (STI), or having started to take any new drugs or having recently had any signs of infection. The rest of the physical examination was unremarkable.

A complete study for acute genital ulcer and opportunistic screening for sexually transmitted infections was requested, which included serology (hepatitis B virus, hepatitis C virus, human immunodeficiency virus (HIV) and syphilis), lesion multiplex PCR (*Haemophilus ducreyi*, *Mycoplasma genitalium*, *Herpes simplex 1*, *Herpes simplex 2*, *Treponema pallidum*, *Neisseria gonorrhoeae*, *Chlamydia trachomatis* ser. A-K, *Chlamydia trachomatis* ser. L1-L3) and urine PCR for *Neisseria gonorrhoeae* and *Chlamydia trachomatis*. We had no prior similar studies for the patient.

Progress

The patient was positive in treponemal (chemiluminescence immunoassay; CLIA) and non-treponemal (rapid plasma reagin; RPR) tests, with RPR titre of 1/1. In addition, the PCR of the sam-

ple obtained from the lesion was positive for *Treponema pallidum*. The rest of the serology and microbiological studies carried out were negative. The patient was diagnosed with primary syphilis with multiple chancres. In view of his history of allergy to penicillin, he was prescribed doxycycline 100 mg every 12 h for 14 days. The skin lesions resolved after about seven days. RPR had become negative in the repeat serology testing at three months, while the rest of the negative serology remained negative. The patient denied any new sexual relations with sporadic partners during the follow-up period; his usual partner was not screened for STI despite our recommendation.

Closing remarks

Syphilis is an STI caused by *T. pallidum* subsp. *pallidum*. After an incubation period of between 10 and 90 days (mean: 21 days), a chancre appears at the *T. pallidum* inoculation site, usually the genital and anal region. The chancre usually consists of a single, painless ulcer with a firm base and hard borders. It is usually accompanied by locoregional lymphadenopathy. This classic clinical presentation of primary syphilis can have less common variations, such as the presence of multiple chancres.^{1,2} There is variability in terms of the frequency with which multiple chancres occur in the different series, with some reports as high as 47%, as well as some debate as to whether or not this is more common in HIV-positive patients.³

Serology is the main investigation for confirming the diagnosis of syphilis. One of its drawbacks is that it can be negative in the initial stages of the infection. After the appearance of the chancre, the treponemal tests take 5–15 days to become positive and the non-treponemal tests take 10–15 days. In these cases, we can opt to repeat the test after the window period or perform direct identification techniques for *T. pallidum* in the syphilitic chancre.⁴ Classically, the technique used for this purpose was dark-field microscopy. Today there are few health centres where this is still performed.⁴ In the 1990s, development began on PCR techniques for the detection of *T. pallidum*, which now have a sensitivity of 84.6–89.1% and a specificity of 93.1–100%. Drawbacks include a higher cost and the lack of immediacy, although the result usually only takes a few days. The multiplex techniques have the added advantage of providing the aetiological diagnosis of the main agents responsible for genital ulcers in one test.⁵

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Figures 1–3. Multiple syphilitic chancres. Eight superficial ulcers with a fibrin base and raised borders.

It is important to maintain a degree of suspicion when diagnosing genital ulcers suggestive of STI, even if they do not coincide with the medical history. The hardness of the lesions should alert us to syphilitic chancre.

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Conflicts of interest

The authors declare that they have no conflicts of interest.

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