



Enfermedades Infecciosas y Microbiología Clínica

www.elsevier.es/eimc



Diagnosis at first sight

Fever and ulcerative-necrotic lesions in a 38 years old male[☆]

Fiebre y lesiones ulceronecroticas en un varón de 38 años

Raquel Cabrera-Fuentes^{a,*}, Alejandro Ortiz-Prieto^a, Teresa Zulueta-Dorado^b, Julián Conejo-Mir^a

^a Servicio de Dermatología y Venereología, Hospital Universitario Virgen del Rocío, Sevilla, Spain

^b Servicio de Anatomía Patológica, Hospital Universitario Virgen del Rocío, Sevilla, Spain



Case report

The case of a 38-year-old male with a history of mild bronchial asthma and non-gonococcal urethritis is reported. The patient attended due to a 10-day history of symptoms, consisting of erythematous papules and multiple ulcerative-necrotic lesions on his face (Fig. 1), torso (Fig. 2) and limbs. He had poor general condition, odynophagia, cervical lymphadenopathies and a fever of up to 40 °C. The fever and general involvement were self-limited in 48 h, after empirical antibiotic therapy was started with amoxicillin-clavulanic acid, with the number of ulcerated lesions persisting and increasing.

The biochemistry profiles, differential blood count and red blood cell count showed ranges within normal limits. A skin biopsy was performed using haematoxylin and eosin staining, which showed an inflammatory infiltrate with abundant polymorphonuclear leukocytes and plasma cells. Anti-treponemal antibodies were detected using immunohistochemistry (Fig. 3). The Gram stain of the sample was negative, and *Staphylococcus epidermidis* was isolated in the culture. The treponemal and non-treponemal tests were positive, with an RPR titre of 1/8. The remaining serology tests requested (human immunodeficiency virus, hepatitis B and C viruses, cytomegalovirus, Epstein-Barr virus) were normal or negative.

Clinical course

With all the findings reported, the patient was diagnosed with malignant syphilis and treatment was established with benzathine benzylpenicillin 2,400,000 IU via the intramuscular route in a single dose. The result of the positive culture for *S. epidermidis* was interpreted as a colonisation. The response to treatment was favourable, with resolution of the skin lesions in three weeks, and the reaginic tests became negative. Infection associated with HIV was ruled



Fig. 1. Ulcerated lesion with necrotic centre on the right cheek.

DOI of original article: <https://doi.org/10.1016/j.eimc.2017.02.006>

[☆] Please cite this article as: Cabrera-Fuentes R, Ortiz-Prieto A, Zulueta-Dorado T, Conejo-Mir J. Fiebre y lesiones ulceronecroticas en un varón de 38 años. *Enferm Infecc Microbiol Clin.* 2018;36:386–387.

* Corresponding author.

E-mail address: rcabrerafuentes@hotmail.com (R. Cabrera-Fuentes).

out in the initial study. However, the patient was retrospectively lost to medical follow-up. We interpreted the detected RPR titres, atypically low in this form of presentation in an immunocompetent patient, as a prozone phenomenon due to lack of dilution. We believe that the hypothesis that he is an HIV-infected patient in the window period is less likely.



Fig. 2. Erythematous papules and more advanced ulcerated lesions on the torso.

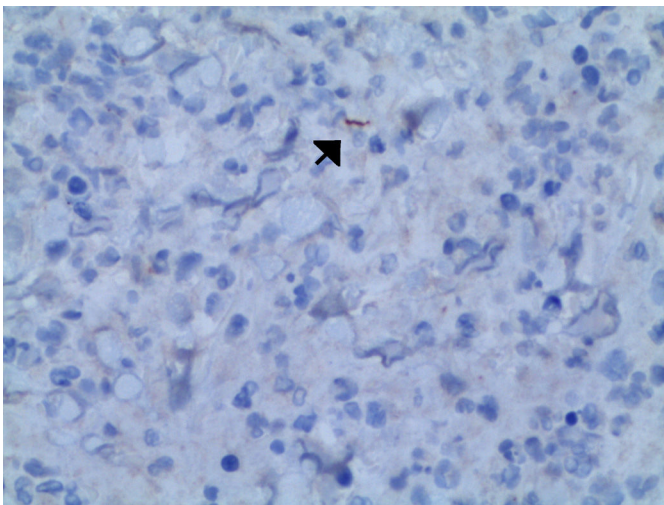


Fig. 3. Immunohistochemical detection of anti-treponemal antibodies.

Comments

Malignant syphilis is a rare condition and is generally considered a variant of secondary syphilis.¹ It is characterised by generalised papulonodular lesions which typically become ulcers. It is generally accompanied by systemic symptoms, consisting of poor general condition, fever, headache, myalgia and arthralgia.

Most of the cases reported in the literature are associated with patients with HIV.^{2–5} Its presentation is less common in

immunocompetent individuals.⁶ It is estimated that its presentation is 60 times more common than in patients not infected with HIV.² The aetiopathogenesis of malignant syphilis is unknown. It is suggested that its presentation is related to the presence of virulent strains, combined with immunosuppression status which determines an inappropriate immune response.³

Malignant syphilis has a wide differential diagnosis, including pyoderma gangrenosum, skin lymphoproliferative processes, varicella-zoster virus infection, pityriasis lichenoides et varioliformis acuta, vasculitis or bacterial, fungal or mycobacterial infections.^{2,4}

Diagnosis was based mainly on clinical findings and serological tests. Immunohistochemical staining using monoclonal antibodies against *Treponema pallidum* is a useful diagnostic tool which has high sensitivity and specificity,⁷ and which facilitated the diagnosis of the case report that we present. There are no differences to the therapeutic management of this form of syphilis compared to other clinical forms of secondary syphilis, with good response to standard treatment regimens.^{1,2,7}

We presented a case of malignant syphilis in an immunocompetent male, a rare form of luetic secondary syphilis typical of HIV-infected patients. Based on our case, we would like to highlight the role of immunohistochemistry to support the diagnosis of this entity, along with clinical and serological findings, which can sometimes suffer a diagnostic delay due to their unusual presentation.

References

1. Watson KM, White JM, Salisbury JR, Creamer D. Lues maligna. *Clin Exp Dermatol.* 2004;29:625–7.
2. Tucker JD, Shah S, Jarell AD, Tsai KY, Zembowicz A, Kroshinsky D. Lues maligna in early HIV infection case report and review of the literature. *Sex Transm Dis.* 2009;36:512–4.
3. Rajan J, Prasad PV, Chockalingam K, Kaviarasan PK. Malignant syphilis with human immunodeficiency virus infection. *Indian Dermatol Online J.* 2011;2:19–22.
4. Pfohler C, Koerner R, von Muller L, Vogt T, Muller CSL. Lues maligna in a patient with unknown HIV infection. *BMJ Case Rep.* 2011;2011, bcr0520114221. Available from: <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=3149485&tool=pmcentrez&rendertype=Abstract>
5. Kelly JD, LeLeux TM, Citron DR, Musher DM, Giordano TP. Ulceronodular syphilis (lues maligna praecox) in a person newly diagnosed with HIV infection. *BMJ Case Rep.* 2011;2011, bcr1220103670. Available from: http://link.worldcat.org/?rft.institution_id=129966&pkgName=openly.jsCate.bmj&issn=1757-790X&linkclass=to_article&jKey=casereports&provider=bmj&date=2011&aulast=Kelly+J.D.&atitle=Ulceronodular+syphilis+%28lues+maligna
6. Alves J, António AM, Matos D, Coelho R, Cachão P. Malignant lues in an immunocompetent patient. *Int J STD AIDS.* 2015;26:518–20. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25015934>
7. Cid PM, Cudós ES, Zamora Vargas FX, Merino MJ, Pinto PH. Pathologically confirmed malignant syphilis using immunohistochemical staining: report of 3 cases and review of the literature. *Sex Transm Dis.* 2014;41:94–7. Available from: <http://content.wkhealth.com/linkback/openurl?sid=WKPTLP:landingpage&an=00007435-201402000-00004>