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A neglected illness still present nowadays: Tuberculoid leprosy☆

Lepra tuberculoide, todavía presente en nuestro medio

As leprosy is a rare chronic disease in our setting, especially in the paediatric population,[1] we present a case report that we consider of interest.

This was a girl referred to the paediatric infectious medicine clinic while her father, of Brazilian origin, was having tests for non-erythematous, non-pruritic, non-painful infiltrated skin lesions on his chin, pinnae and nose; these were associated with multiple erythro-pigmentary macular lesions on his trunk and limbs, and numbness in the distal region of the left leg.

Our three-year-old patient, born in Spain and with no medical history of interest, had a ring-shaped lesion with a raised, erythematous border and a flatter, hypopigmented centre, 5 cm in diameter, on the medial aspect of her left forearm (Fig. 1). The lesion had been there for a year and had not responded to topical corticosteroids. The decision was made to biopsy the lesion.

The pathology report confirmed the presence of chronic, granulomatous nodular inflammation, with giant cells and a perivascular, periadnexal and perineural lymphocytic crown (Fig. 2). It was stained with the Fite-Faraco technique, with no bacilli observed. A sample of the biopsy was sent for polymerase chain reaction (PCR) for *Mycobacterium leprae (M. leprae)* with *M. leprae*-specific-repetitive-element PCR positive, *M. leprae* Ag 18-kDa PCR positive and GenoType *Leprae*-DR negative. Nasal exudate smear microscopy was negative.

Both clinically and bacteriologically, this seemed to be a case of paucibacillary leprosy, according to the WHO classification, or tuberculoid leprosy (pathologically), one of the most common forms in childhood. Treatment was started with rifampicin (15 mg/kg/dose monthly) and dapsone (2 mg/kg/day) for six months.

A skin biopsy was also performed in the father, who had a dermal histiocytic infiltrate with acid-alcohol-fast bacilli compatible with leproma, and he was diagnosed with lepromatous leprosy.

Leprosy in children is an epidemiological indicator of active foci in adults and recent transmission.[2] Diagnosis is difficult, even in countries with a higher prevalence of leprosy (Brazil, India).[3] In Spain, 168 cases of leprosy were diagnosed from 2003 to 2013, with 128 foreign patients; mainly (71.9%) from South America (Brazil).[4] In our setting, a high degree of clinical suspicion based on an adequate epidemiological investigation is necessary to arrive at the diagnosis. The route of transmission is not very clear, but it is believed that the contagion is by respiratory secretions and not by contact with the skin lesions.

According to the Ridley-Jopling classification (based on the patient's clinical and immunological status), two main forms are described[5]: tuberculoid leprosy, one or a few hypo- or hyper-pigmented lesions with or without loss of sensation; and lepromatous leprosy, with multiple skin lesions and nerve involvement. Between these two forms there is a broad clinical spectrum (borderline-tuberculoid, borderline-borderline and borderline-lepromatous). In the cases tending towards lepromatous, the histology shows inflammatory infiltrates with Virchow cells full of bacilli and absence of appendages. The tuberculoid polarity involves tuberculoid granulomas with epithelioid cells, Langerhans cells and lymphocytic infiltrates with the absence of bacilli. According to the WHO, leprosy is classified as paucibacillary (1–5 skin lesions, only one affected nerve trunk, negative smear microscopy) and multibacillary (>6 skin lesions, more than one affected nerve trunk and positive smear microscopy).

Key to microbiological diagnosis is a skin biopsy, which enables the presence of bacilli to be visualised by Fite-Faraco staining. It has not been possible to isolate *M. leprae* in the usual culture media for mycobacteria. Smear microscopy has a specificity of 100% and

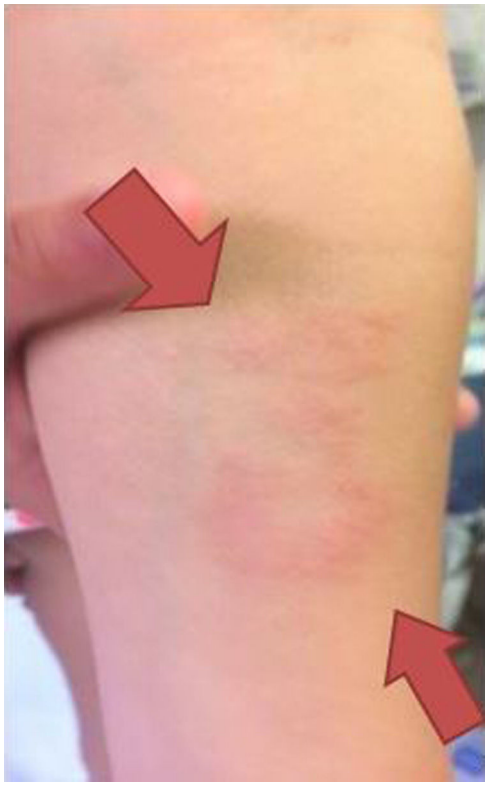

Figure 1. Skin lesion: ring-shaped, erythematous, with raised border and hypopigmented centre.

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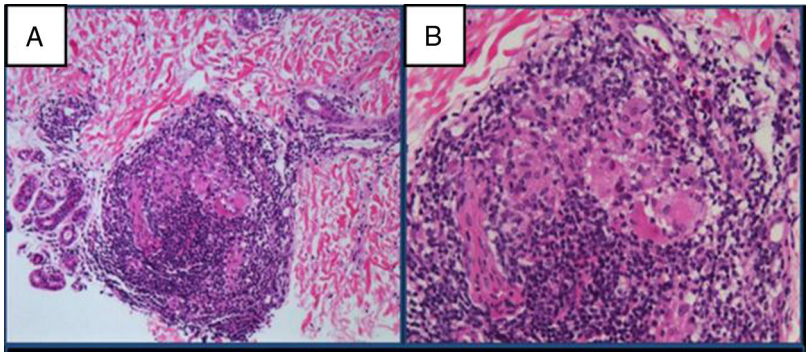

Figure 2. Pathology of the skin biopsy. Chronic, granulomatous inflammation with the presence of giant cells and a peripheral dense lymphocytic crown with a perivascular, periadnexal and perineural distribution. Haematoxylin-eosin ·10 (A) and ·20 (B).

a sensitivity of 50% in samples of nasal mucosa, earlobe and skin lesions. In tuberculoid (paucibacillary) leprosy, bacilli are very difficult to detect and genome amplification (PCR) techniques for the detection and identification of *M. leprae* have meant a significant advance in these cases.[6] The sensitivity of PCR in paucibacillary forms is from 50% to 80%. The GenoType Leprae-DR technique also makes it possible to analyse resistance to rifampicin, quinolones and dapsone.

The WHO recommends combined therapy[7]; double therapy with rifampicin and dapsone in paucibacillary forms for six months and, in multibacillary forms, adding a third drug (clofazimine) and prolonging the duration of treatment to 12 months. Chemoprophylaxis in cohabitants is not indicated.

In this case, we wish to highlight the importance of studying contacts who live with leprosy patients, especially with multibacillary forms, as leprosy is a curable disease if properly treated and this prevents transmission to other people.

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Conflicts of interest

The authors have no conflicts of interest.

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Appendix A. Supplementary data

Supplementary material related to this article can be found, in the online version, at doi:https://doi.org/10.1016/j.eimce.2019.10.010.

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HIV-1 primary infection and acute hepatitis A: Beware of co-infection!

Primoinfección por VIH-1 y hepatitis A aguda: cuidado con la co-infección

Case report

We report a case of a 27-year-old man without relevant medical history. He was born in Costa Rica and was at that moment visiting Barcelona. He presented to the emergency department with a 3-day history of fever, headache and polyarthralgia. On clinical exam hepatosplenomegaly, jaundice and fever (39 °C) were documented. He referred a negative HIV serology performed 6 months before in his country, and reported sex with other men.

Initial laboratory test revealed altered liver parameters. Total bilirubin was 6.5 mg/dL (predominantly conjugated), aspartate aminotransferase 885 IU/L, alanine aminotransferase 2847 IU/L, alkaline phosphatase 238 IU/L, gamma-glutamyl transferase 864 IU/L and prothrombin time 67%.