Primary lesion of Mucocutaneous Leishmaniasis simulating external otitis

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INTRODUCTION

Mucocutaneous Leishmaniasis (MCL) has different clinical forms, depending on the leishmania species involved and its relation with the host². In this paper, we report on the case of a patient, in whom the primary lesion was on the ear pinna, with bacterial infection associated.

CASE PRESENTATION

A 53-year-old male patient, coming from an endemic rural area, was referred to the ENT Department with a painful suppurative lesion in his left ear pinna, with necrotic areas in the helix and anti-helix, granulomatous aspect in the pre and retroauricular regions and an elevated papule with central necrosis, similar to an inoculation lesion (Figure 1A-B). The patient reported the signs and symptoms started about one month before, with intense pruritus, followed by papulae and ulceration in two weeks. Otoscopy was normal. Blood workup showed a leucocytosis of 14,498 cells/mm³ and ESR of 54 mm. Other laboratory parameters were normal. Mastoid and ear CT scans were also normal.

We surgically removed debris from the area, collected material for culture and biopsy, and started the patient on clindamycin. The secretion culture isolated Staphylococcus aureus, and we decided to keep the antibiotic choice. After 14 days, the suppurative process regressed, making the granulomatous aspect clearer in the bottom of the ulcer, infiltrating the adjacent skin (Figure 1C).

Histopathology reported an intense inflammatory infiltrate, made up of lymphocytes, plasmocytes, eosinophilic granulocytes and cellular debris on the dermis. The findings were suggestive of MCL; however, no parasite was seen. We then roughened the borders of the lesion for a direct exam, and then we found the leishmania in the amastigote form.

The patient was then started on Antimicrobial treatment. Notice the improvement in the ear lobe and in the pre and retro auricular regions.

DISCUSSION

The classic MCL is a well-outlined ulcer, with elevated borders and granulomatous bottom, which sprouts out at the place of inoculation³. The secondary infection may happen in 54.2% of the patients, and the most commonly found germ is Staphylococcus aureus⁴, the same found in our case, which explains the good initial response after starting the clindamycin.

Clinical suspicion was based on associating lesion appearance with epidemiological data⁵. The characteristic aspect of the leishmaniasis ulcer was only seen after controlling the suppurative process, when the granulomatous bottom became more evident, and the diagnosis of MCL was reinforced by the patient’s epidemiological past. Finding the Leishmaninat is the gold standard to diagnose MCL. Histopathology can find amastigotes in only 25% of the skin lesions. In the other cases, findings may suggest the diagnosis, but not define it⁶. Direct microscopy has a sensitivity ranging between 50 and 70%⁷. In the case hereby presented, histopathology suggested MCL, and the parasites were found by direct exam, thus defining the diagnosis.

The drug-of-choice to treat all types of leishmaniasis are pentavalent antimonials. In Brazil, the Department of Health recommends the dose of 15 mg/Kg/day, for 20 days for the skin lesions⁸, which is what we used in the patient hereby reported, and we extended it for 30 more days because of the severity of the lesion. When there is no response to treatment, the drugs of choice are the pentamidines and amphotericin B. Alternative treatments, such as azithromycin, paromomycin, miltefosine, pentoxifylline, allopurinol, fluconazole e itraconazole are still not proven in large scale⁹.

FINAL REMARKS

MCL lesions have an intense polymorphism. The patient’s epidemiological past and a high degree of suspicion are fundamental for proper diagnosis.

REFERENCES

1. Gonçalves CC, Carvalho MLR. Leishmanioses tegumentar americana. Rev Soc Bras Med Trop. 2003;36(1):71-80.
2. Silveira PT, Müller SR, Souza AAA, Lainson R, Gomes CM. Infectious diseases in a_R controlled area in northeast Brazil. Rev Soc Bras Med Trop. 2006;39(1):47-50.
3. Verí LA, Macedo JLS, Guifão IA, Santos CG, Santos JB. Sensibilidade antimicrobiana de bactérias aeróbicas isoladas de úlceras leishmanianas, em Corte de Pedra, BA. Rev Soc Bras Med Trop. 2000;33(1):67-70.
4. Andrade BB, Beaventura B, Barata-Netto M, Barata A. Métodos diagnósticos da leishmaniose tegumentar: fatores, falsas-positivas e falsas-negativas. Rev Soc Bras Med Trop. 2007;28(1):73-82.
5. Costa IM, Saldanha ACR, Nascimento D, Sampaio G, Carneiro F, Lisboa E, et al. Modalidades clínicas, diagnóstico e abordagem terapêutica da leishmaniose tegumentar no Brasil. Rev Med Bras. 2009;55(4):76-83.
6. Almeida OLS, Santos JB. Avanços no tratamento da Leishmaniose Tegumentar do Novo Mundo nos últimos dez anos: uma revisão sistemática da literatura. An Bras Dermatol. 2011;86(5):497-506.