

PICTURES IN DIGESTIVE PATHOLOGY

Visceral leishmaniasis with mediastinal lymphadenopathy diagnosed by endoscopic ultrasound-guided fine needle aspiration

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CASE REPORT

A 44-year-old man with a HIV infection and levels of CD4 < 100/mm³, under antiretroviral therapy and with a previous medical history of visceral leishmaniasis (VL), was admitted to hospital with progressive muscular weakness and paraesthesia in both legs for three months. Imaging procedures were performed, showing a leptomeningeal thickening and enlargement of hilar and mediastinal lymph nodes. Bone marrow aspiration and study of the cerebrospinal fluid were carried out with no diagnostic conclusion. Lymphoma was considered as a first differential diagnosis and the patient underwent an endoscopic ultrasound (EUS) that showed multiple mediastinal lymph nodes larger than 1 cm with iso- and hypoechoic patterns, rounded shape, and well-defined edges (Fig. 1A). An EUS-guided fine needle aspiration (FNA) of one adenopathy located in the right-lower paratracheal region (4R, according to Mountain-Dresler classification) was performed, with an onsite cytopathologist and without complications (Fig. 1B). Surprisingly, cytological study showed characteristic macrophages with intracytoplasmic

Leishmania (Fig. 2 A and B). The patient was treated with liposomal amphotericin B, itraconazole and corticoids, with initial improvement. Unfortunately, due to other morbidities not related with the endoscopic procedure, the patient died two months later.

DISCUSSION

VL is a disseminated protozoan infection caused by the *Leishmania donovani* spp. complex transmitted by phlebotomine sand flies. VL is a serious condition, more so in HIV co-infected patients, and the therapy is often toxic, so establishing a correct diagnosis is extremely important. The confirming test for VL is visualization of the amastigote form of the parasite under microscopic examination of aspirates from lymph nodes, bone marrow or spleen; invasion of mediastinal lymph nodes is exceptional (1,2).

In conclusion, to date, there had been no previous report of VL diagnosed by EUS-FNA (3-5). Not all mediastinal lymph nodes are malignant, lymphomas or sarcoidosis, and EUS-FNA is very useful to clarify the diagnosis.

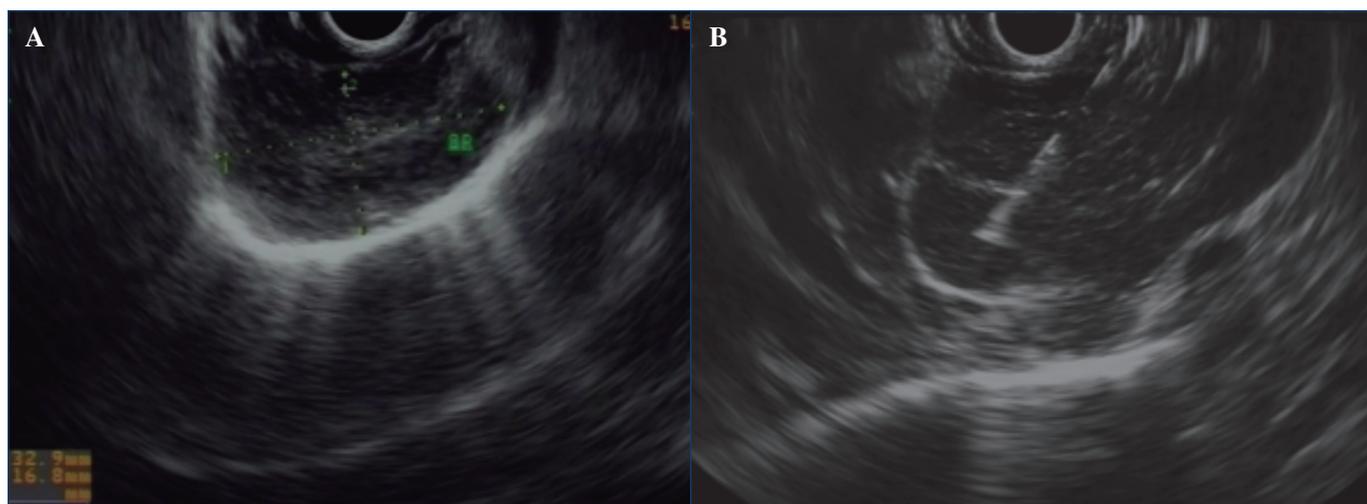


Fig. 1. A. Endoscopic ultrasound (EUS) showing right-lower paraesophageal mediastinal lymph nodes (8R according to Mountain-Dresler classification). B. EUS-guided fine needle aspiration using a 22-gauge needle (Expect, Boston SC, Natick, MA, USA) of a right-lower paratracheal mediastinal lymph node (4R).

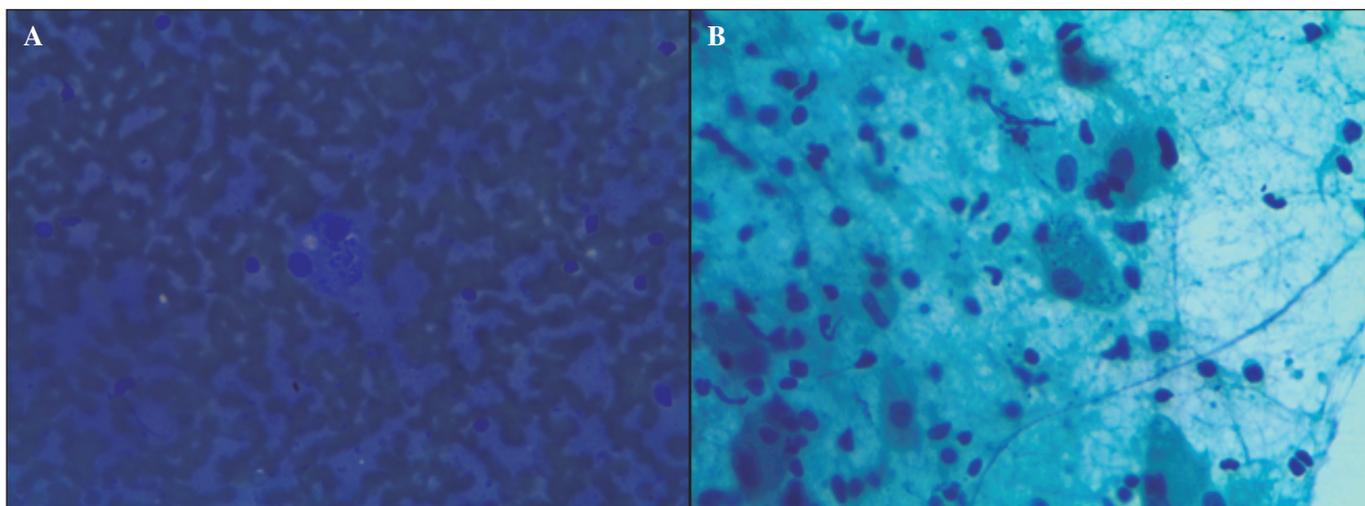


Fig. 2. A. Diff-Quick stain showing the amastigote form of *Leishmania*. B. Macrophages with intracytoplasmic *Leishmania* (Papanicolaou x 630).

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