Imported eosinophilic fever with myositis: a diagnostic challenge

A 39-year-old caucasian man presented to our hospital in Barcelona with fever, dry cough, headache and weight loss of 4 kg. Symptoms started 5 days after returning from a 21-day travel to Malaysia. His physical examination was unremarkable except for a splenomegaly. Laboratory tests showed mild elevation of transaminases, elevated levels of lactate dehydrogenase (468 UI/L) and a normal blood cell count. Blood cultures, thick and thin blood smear and serologic tests for dengue, chikungunya, HIV, ~~citomegalovirus~~cytomegalovirus, Epstein-Barr virus, herpes virus 6, parvovirus B19, *Toxoplasma* spp and *Rickettsia conorii* were negative.

The patient was discharged under empirical treatment with cefixime but after 10 days he was readmitted due to reappearance of fever and lower lymb myalgias. Blood tests showed elevation of creatin-phosphokinase (367 UI/L) with normal troponin levels and severe eosinophilia (3.300 cells/µL). Additional serologic examinations for *Schistosoma*, *Leptospira*, *Brucella*, *Trichinella*, *Strongyloides*, *Taenia* and *Fasciola* were also negative and no ova, cysts or parasites were observed on stool samples. A toraco-abdominal computed tomography reported no abnormalities but splenomegaly.

Finally, a quadriceps muscle biopsy stained with hematoxilin and eosin and PAS stain revealed the presence of a protozoa invading muscle cells (Figure 1), confirming the clinical suspicion of muscular sarcocystosis. Treatment with prednisone 30mg once daily with progressive~~ly withdrawn~~ dosage reduction and albendazol 400mg twice a day for ten days was prescribed. Fever and myalgia disappeared, and laboratory tests normalized within a few days, without relapses during the follow-up year.

Muscular sarcocystosis is a cosmopolitan protozoan infection -mostly described in Asia- acquired by eating food or drinking contaminated water by oocysts or sporocysts. It typically presents as a biphasic disease, with an initial acute febrile illness followed by a myositic phase with eosinophilia. Definitive diagnosis can be made by identifying the sarcocystis cysts in muscle sections of a biopsy, nevertheless in many cases muscular biopsy only reveals myositis, myonecrosis, perivascular inflammation and eosinophilic myositis.

Definitely, muscular sarcocystosis should be considered in the differential diagnosis of a patient with fever, myositis and eosinophilia, returning from the tropics -specially from endemic areas- after ruling out trichinosis and toxoplasmosis.

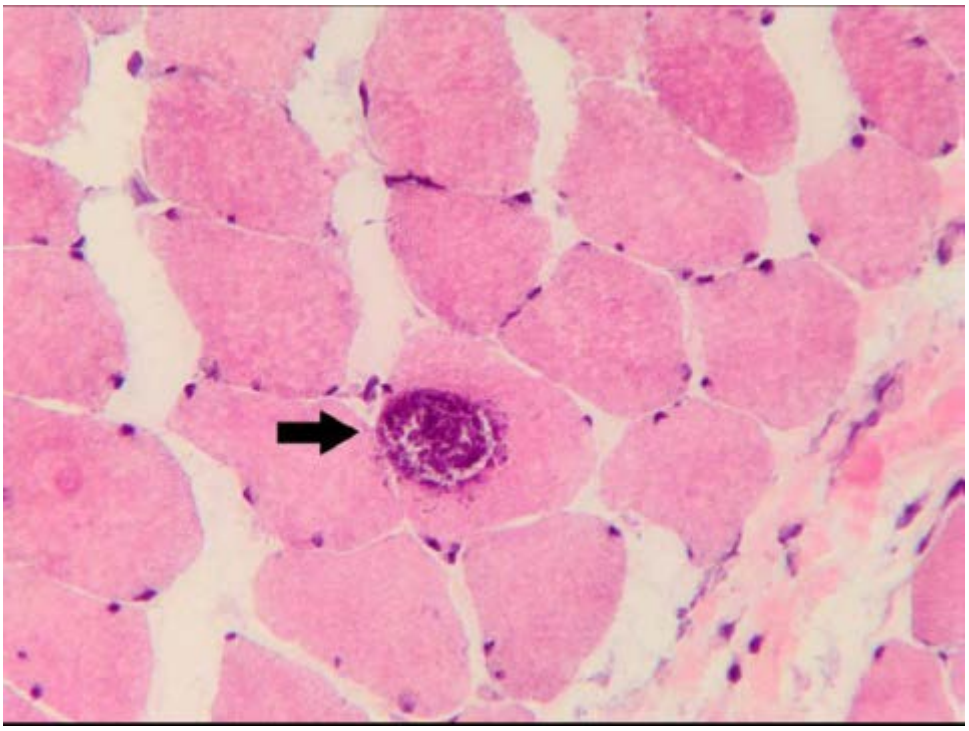

Fig. 1. Sarcocystis invasion of muscle cells in a quadriceps biopsy stained with hematoxilin and eosin.