

Diagnostic Challenge

African Tick Bite Fever: First imported cases diagnosed by PCR in Argentina

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Imported cases of African Tick Bite Fever in Argentina: a diagnosis challenge.

On April and May of 2017 two previously healthy male travelers returned from South Africa after participating in big-game hunting safaris. The cases were unrelated and they did not assist to a previous medical consultation for prevention of travel diseases, neither used mosquito or tick repellents. Upon return, when attended to the hospital, both travelers referred suffering generalized arthromyalgias and one of them also fever and fronto-occipital headache. In both cases, lesions resembling inoculation eschars were found and both travelers referred having suffered multiple tick bites. Vital signs were normal, but a significant increase in transaminases was detected. Serum samples were drawn, and eschar biopsy specimens were obtained (Fig. 1).

All serum samples were positive to antibodies against *Rickettsia* of the spotted fever group (SFG), with IgM titers > 1:128 and IgG 1:512. Molecular detection of the rickettsial *gltA* gene resulted positive, and

additional PCR test targeting the 23S-5S rRNA intergenic spacer and the specific SFG *gene D* and *ompA*, were also positive. Amplicons from *ompA* and 23S-5S rRNA intergenic spacer were sequenced. The fragments showed 99% identity with reference sequences of *R. africae*.

Both patients were initially empirically treated with doxycycline 200 mg/day for 6 days with clinical improvement in the following 48 hours.

In this report, we describe the first imported cases of African tick bite fever (ATBF) in, confirmed by molecular amplification and sequencing of specific gene fragments. *Rickettsia africae* infection is the second cause (malaria being the first) of systemic febrile illness in travelers returning from sub Saharan Africa. *Rickettsia africae*, is transmitted mainly by *Amblyomma hebraeum* and *A. variegatum* ticks. The ATBF is an emerging disease and the diagnosis represents a challenge in non-endemic countries, requires a thoughtful anamnesis, a high index of suspicion and consideration of the disease within the differential diagnoses of acute post-travel febrile syndromes.

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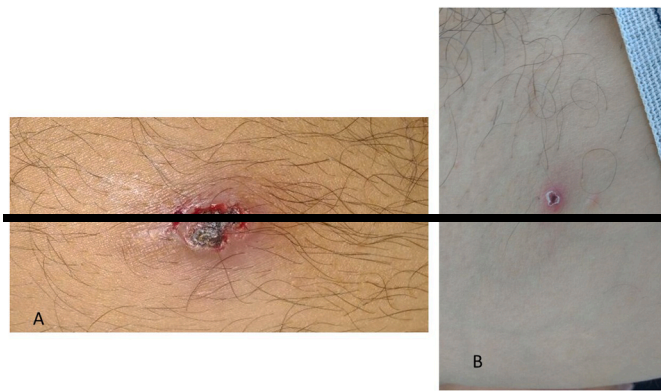


Fig. 1. A-Inoculation eschar in left popliteal hollow (case 1). B- Inoculation eschar in the right thigh (case 2).