A fever of 39°C, headache, and malaise developed in a traveler from Germany who had returned from a four-week vacation to the east coast of South Africa. She had visited friends in a rural area and had been on a safari. During the tour, she had discovered a painless lesion on her abdomen. A similar, but smaller lesion had developed on her arm. On examination, two typical eschars were found (Figure 1). There was no rash or regional lymphadenopathy. The patient did not recall a tick bite and no other travelers in her group were affected.

C-reactive protein and lactate dehydrogenase levels were increased (5.82 mg/dL and 348 U/L, respectively). A leukocyte count and results of liver function tests were normal. Treatment with doxycycline, 100 mg twice a day, was initiated for suspected African tick bite fever (ATBF) and the patient was seen again four days later (Figure 2). The result of a rickettsial immunofluorescence assay using cross-reactive Rickettsia conorii antigen was positive for an acute-phase serum sample and a convalescent-phase sample eight weeks later (1:40 and 1:160, respectively). A pan-Rickettsia real-time polymerase chain reaction (PCR) of the necrotic center of the lesion (Figure 3) yielded a positive result, confirming the rickettsial etiology of the infection. Fragments of the bacterial citrate synthase gene were amplified by PCR (Figure 4). Amplicons were subsequently sequenced and identified R. africae as causative agent.

African tick bite fever is endemic in large parts of sub-Saharan Africa and is the most common rickettsiosis in travelers. Aggressive cattle ticks (Amblyomma sp.) act as vectors and reservoirs. Unlike Rocky Mountain spotted fever, ATBF is not a life-threatening disease. However, travelers should receive pre-travel advice on how to avoid the infection, i.e.,
by taking measures to minimize the risk of arthropod bites in bush vegetation likely to be infested with ticks, such as wearing protective clothing and inspection of the skin, which was not performed in the case presented. The clinical diagnosis is supported by serologic analysis and PCR or culture from skin or blood samples.

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