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Schistosomiasis Screening of Travelers to Corsica, France

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To the Editor: As members of the French Ministry of Health Working Group on autochthonous urinary schistosomiasis, we read with interest the 2 recently published articles regarding schistosomiasis screening of travelers to Corsica, France (*1*,*2*). Surprisingly, the authors of both articles lacked evidence to support the diagnosis of schistosomiasis in most of what they referred to as confirmed cases. The diagnostic standard for confirmation of urinary schistosomiasis is identification of eggs by microscopic examination of urine samples (*3*–*5*). If this criterion were applied in both reports, only 1 patient of the 7 allegedly confirmed cases would actually be confirmed.

The low sensitivity of microscopy is well known. Therefore, different serologic tests have been developed, including Western blot (WB). In the study based on travelers from Italy (*1*), the SCHISTO II WB IgG test (LDBIO Diagnostics, Lyon, France) was used. This test, available since 2015, is based on both *Schistosoma haematobium* and *S. mansoni* antigens and has not been evaluated by anyone other than the manufacturer. Moreover, the authors did not report any details regarding the molecular weight and number of specific bands observed on the strip.

In the study by authors from the GeoSentinel Surveillance Network (*2*), both cases that could have been infected after 2013, since exposure occurred only in 2014, and 4 cases which reported bathing in rivers in Corsica other than the Cavu River had just 1 weakly positive serologic screening test. Hence, irrespective of the criteria for a confirmed case of schistosomiasis described above, it appears difficult to conclude that confirmation could rely on only 1 positive serologic test, even a WB.

Altogether, these 2 studies identified only 1 patient with parasitological evidence of infection that was attributable to the already known 2013 focus in Cavu River. Therefore, these articles do not provide evidence of transmission of schistosomiasis in Corsica after 2013 or outside the Cavu River.

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In Response: Regarding the comments by Berry et al. (*1*) on our previously published letter, we acknowledge that, in strict parasitological terms, confirmation of the diagnosis of urogenital schistosomiasis requires the identification of eggs by microscopic examination of urine. Nevertheless, we aimed at an operational case definition, providing criteria for identifying cases most likely to be true infections. We should not forget that microscopy has an unacceptably low sensitivity (*2*). We should also consider that currently available serologic tools are hampered by both a poor sensitivity and a poor specificity for *Schistosoma haematobium* (*3*). Regarding immunoblot, Berry et al. are correct in saying that there is not yet any formally published evidence of its accuracy for *S. haematobium* and that the high specificity declared, close to 100%, is based on data provided by the manufacturer. A formal study on the accuracy of this test is underway at the Centre for Tropical Diseases of Sacro Cuore Hospital. This assay has been less extensively assessed than that in which purified *S. mansoni* antigen is used, as described previously, which has shown very high accuracy (*4*). However, Western blot is already accepted as a diagnostic standard for the identification of other infectious diseases, including parasitic infections such as cysticercosis (for which, indeed, the direct parasitological confirmation is often impossible), and has become the test of choice for the latter (*5*).

Moreover, the population in our study was composed of persons not exposed to other parasites. Therefore, cross-reactions with other helminths would be extremely unlikely.

In conclusion, although we recognize that, by a strictly semantic definition, the term "confirmed" should be reserved for cases for which there is a parasitological proof, in operational terms, we could not rely on a direct test that has such a poor sensitivity in this particular patient population. Had we done so, we would have found a subestimated, and therefore totally incorrect, picture of the true prevalence, leading to inappropriate conclusions and actions (or lack thereof).

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In Response: We agree with Berry et al. (*1*) that the diagnostic standard for confirmation of urinary schistosomiasis is the identification of eggs by microscopic examination of urine, especially in patients living in endemic areas with high schistosome loads. However, this approach may not apply to travelers who have low parasite loads and in whom the diagnosis relies mainly on serologic testing (*2*,*3*). Given the very poor sensitivity of egg detection in non–schistosomiasis-endemic settings, most tropical and travel medicine clinics in Europe use conventional microscopy systematically combined with 2 different (commercial or in-house) serologic tests (*2*). The sensitivity of this approach (i.e., diagnosis of infection if combined ELISA and hemagglutination inhibition assay or an indirect fluorescent antibody test are positive) is >78% for chronic urinary schistosomiasis; specificity is 75%–98% when using various in-house