CORRESPONDENCE

Imported Leishmaniasis in Australia

To the Editor in Chief:

Stark and colleagues[1] reported a series of imported leishmaniasis cases diagnosed in Sydney, Australia. Although we agree with its importance, given the context of travel and migration increases between endemic and nonendemic areas, we would like to discuss some misleading messages in their article and its relevance for travel medicine.

They stated that humans and vertebrates are reservoirs with more than 25 species capable of producing human disease, but in fact, 17 species have been confirmed: 11 in the New World (*Viannia* and *Leishmania* subgenuses), 5 in the Old World (*Leishmania* subgenus), and 1 in both Old and New World, *Leishmania (Leishmania) infantum/chagasi*.[2] Leishmaniases are zoonoses with important reservoirs, but humans should not be pragmatically included there. The species reported in human infections are all either zoonotic or have recent zoonotic origins; then, these are typically zoonoses and not anthropozoonoses, excepting visceral leishmaniasis.[2]

Their patients with cutaneous leishmaniasis (CL) presented in most cases single lesions (localized cutaneous leishmaniasis, LCL); however, they neither described the number of lesions nor its corporal localization. *Leishmania (Leishmania) mexicana* and *Leishmania (Viannia) braziliensis* did not tend to produce the same manifestations in travelers (LCL); the last one commonly produces mucocutaneous lesions (MCL) but not the first.[3] Were those patients with *L (Viannia) braziliensis* infection followed? They possibly developed MCL;[3] the risk of that in migrants is 3 to 10 times higher than in indigenous population, as reported by Alcais and colleagues.[4] They stated that they identified 13 Old and 7 New World species; however, there were just 6 species: *Leishmania (Leishmania) major*, *L (Leishmania) infantum*, *Leishmania (Leishmania) tropica*, *Leishmania (Leishmania) donovanii*, *L (Viannia) braziliensis*, and *L (Leishmania) mexicana*. Also, it is interesting to know why these individuals traveled or migrated. What about the locations of exposition and infection? Epidemiological patterns of distribution of parasites and vectors of the leishmaniases in the ecoregions are significantly heterogeneous with different parasite drug susceptibility profiles. Although countries could have endemic areas, there are other zones that are not endemic, so cities and towns are important in the report. Another epidemiological aspect that would be reported is the number of travelers and migrants to Australia. An "increase" in the number of imported leishmaniasis cases was reported, but the time trends were not described.

LCL patients were treated with liposomal amphotericin B, but why? This is not the drug of choice for the leishmaniasis; it could be suggested as an alternative option for *Leishmania (Viannia)* infections but not for *L (Leishmania) mexicana*. The World Health Organization recommends treating CL with systemic pentavalent antimonial drugs.[2,3] This is recommended for *Leishmania (Viannia)* species but is not required for most other cases of CL. Unnecessary systemic therapy may be harmful and can be associated with significant adverse effects.[3] CL could cure spontaneously, eg, *L (Leishmania) mexicana* 75% in 3 months.[3] Schwartz and colleagues[3] commented that miltefosine failed to cure *L (Viannia) braziliensis* based on Soto and colleagues[5] who found 53% to 91% of efficacy (per-protocol). Both articles[3,5] clearly reported therapeutical failures and not in vitro drug resistance.

Recently, not only novel species of CL in kangaroos (born in the Northern Territory and Queensland) have been reported[6] but also different sand fly vectors have been reported from caves in Queensland.[7] This should be further researched to assess the potential risk of local human transmission from imported *Leishmania* species. Also in relation, were all these patients residents of Sydney, NSW? Were they from other zones, eg, Queensland?

Finally, no considerations were made about the two human immunodeficiency virus coinfection cases reported. To conclude, it is always important to go further from simple aspects of the epidemiology of tropical diseases in travelers up to molecular issues, especially in cases where imported *Leishmania* species could become endemic in nonendemic countries such as Australia where travel medicine practitioners should have a significant role in surveillance, proper diagnosis, treatment, and prevention of disease.

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