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Letter to the Editor

Lagochilascariasis in a housecat and the potential risk for human disease

Dear editor,

Human lagochilascariasis is a rare zoonosis characterized by subcutaneous purulent lesions caused by *Lagochilascaris* sp. (Nematoda, Ascaridida), parasites of wild cats. The parasite natural life cycle and mechanisms of infection are poorly known. Definitive host infection occurs by preying on intermediate hosts with encysted L3 larvae in their muscle tissue.[1]

There are five known species of the genera *Lagochilascaris*, but only *Lagochilascaris minor* was associated with human infection. Currently, *L. minor* and *Lagochilascaris major* have been found parasitizing cats in Brazil,[2,3] and only *L. minor* was reported to infect humans.[4]

In Brazil, *L. major* was found naturally infecting two domestic cats,[3] and *L. minor* was recorded in one domestic cat.[2] We report the second case of natural infection by *L. minor* in domestic cats (*Felis catus*) in Brazil, the first in Rio de Janeiro state, calling attention for potential human infection.

A 2-year old female mixed-breed cat, weighting 3 kg, living in a farm situated in Km 52 of Rio-Friburgo Road in the municipality of Cachoeiras de Macacu (22° 27'49"S, 42° 39'09"W), Rio de Janeiro state, Brazil, presented anorexia, prostration and weight loss. The animal had an abscess in the right side of the neck ventral region with intense itching. During the drainage of the abscess a bloody secretion with 11 milky-white color helminthes were found and collected for identification.

The helminthes were fixed in hot AFA (alcohol 70o GL, 93 mL; formaldehyde, 5 mL; acetic acid, 2 mL), clarified with acetic acid and phenol, mounted in slides with Canada balsam and deposited in the Helminthological Collection of the Instituto Oswaldo Cruz (CHIOC), number 35752 (whole mounts). Adult parasites had 14 to 21 mm length by 0.45 to 0.61 mm width and were identified as *L. minor*.[5,6] Microphotographs were obtained with Olympus BX41 bright field microscope (Fig. 1).

The first Brazilian case of human lagochilascariasis was described by Artigas et al.[7] in the state of São Paulo, and today Brazil has the highest number (88) of human cases reported in the literature.[4] However, lagochilascariasis in naturally infected domestic cats has been rarely reported, with only a few cases in Uruguay,[5,8] Argentina,[9] and Brazil.[2,3]

Barbosa et al.[10] demonstrated that the domestic cat has a pattern of infection by *L. minor* very similar to those of humans, thus acting as reservoirs for this parasite. We report here the first case of *L. minor* natural infection in a domestic cat in the state of Rio de Janeiro, Brazil. Parasitism was not detected in the owner, but his close relationship with the cat increases the potential risk for human infection, bringing up the concern of new human cases in this area, making this information valuable for development of public health measures.

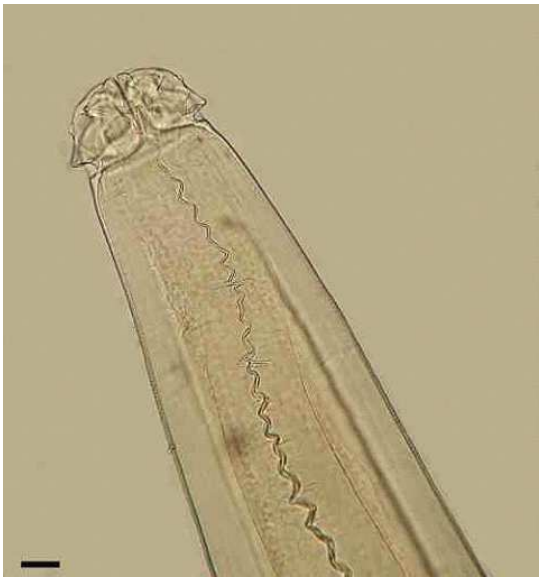

Fig. 1 - Anterior portion of a male of *Lagochilascaris minor*, ventral view. Bar = 0.07 mm.

Conflict of interest

All the authors declare to have no conflict of interest.

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