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G. Battelli, G. Canestri Trotti, S. Pampiglione (presidente), G. Poglayen, M. Trentini

NASAL PENTASTOMIASIS IN DOGS BY LYNGUATULA SERRATA FROHLICH 1789: NOTES ON ITS VERY HIGH BIOLOGICAL POTENTIALITY.

M. PRINCIPATO (1), G.A.POLIDORI (1), F.DACOMO (2), S.GIANNETTO (3)

(1) Istituto di Parassitologia, Università di Perugia; (2) Medico Veterinario, Perugia; (3) Cattedra di Parassitologia Veterinaria, Università di Messina;

Linguatula serrata (=L.rhinaria) is a cosmopolitan parasite occurring in the nares and frontal sinuses in wild and domestic carnivorous animals . The dog is one of the definitive hosts, whereas herbivorous and omnivorous animals and, occasionally, man are intermediate hosts. Nasal pentastomiasis is, therefore, a zoonosis of a worldwide medical importance. Systematics of Linquatula serrata is still uncertain. This arthropod. in fact, shows characteristics of different classes and orders. If, on one hand, the adult parasite is apparently far from Arthropods phylum, on the other hand, its developmental stages make it close to the Acarina order. As a matter of fact, its life cycle reminds, for its complexity, of that of certain species of helminths and the hyperdevelopment of its reproductive system implies a very high biological potentiality. Our survey has begun by finding some embryonate eggs (90x70 micron), diagnosed as probable pentastomids, in the feces (2-3u/g) of three dogs, for the first time in Umbria. The animals showed symptoms of inflammatory rhinitis with some slight bloodish mucous, now and then coming out of their nares. The parasitological test of their nasal secretion has revealed the presence of the same eggs (28-56 u/ml), in a greater number, together with microscopic flaked pieces of mucosa. The removal of the parasites - three in number has confirmed the suspected diagnosis, for the specimens collected (mm.65-78-92 long) have been identified as ovigerous females of Linguatula serrata, Frohlich, 1789. In consideration of the zoonotic interest of this unusual parasitological finding, we have tried to examine the biological potentiality in relation to the reproductive system, counting the number of eggs, both embryonate and not, contained in the parasites' uterus. The result of these observations is the following: on an average, each female of Linguatula serrata had n°630 eggs in each mm of its uterus; this one, completely uncoiled, measured respectively cm.108, cm.115, cm.122 in length in the three specimens and it was located for its 3/4 in the proximal part of the parasites' body . Each specimen of Linguatula contained, therefore, respectively about nº680,400, 724,500 and 768,600 eggs. The above said great numbers of eggs observed, already embryonate at the moment of their oviposition and extremely resistant to drying process, entails a very high biological potentiality that, in our opinion, makes up for the rarity, on the epidemiological level, of this kind of parasitological finding in Italy and, from a sanitary point of view, represents a source of animal and human infection not to be undervalued.