SKIN LESIONS ON RATTUS RATTUS ALEXANDRINUS CAUSED BY NOTOEDRES SP. (ACARI)

CRISTINA MARQUES LISBOA LOPES; PEDRO MARCOS LINARDI*; WASHINGTON LUIZ TAFURI* & JOSÉ RAMIRO BOTELHO*

Departamento de Parasitologia, Instituto de Ciências Biológicas, Universidade Federal de Minas Gerais, Caixa Postal 2486, 31270-901 Belo Horizonte, MG, Brasil
*Departamento de Ciências Biológicas, Universidade Federal de Ouro Preto, MG, Brasil

*Rattus rattus alexandrinus (Geoffroy, 1830) is a rodent of commensal habits and can be found in the proximity of certain rural areas.

The ectoparasites usually observed in this rodent are fleas, lice and Mesostigmate mites. This rodent is also known to be a carrier as well as a reservoir of plague from wild to domestic rodents.

Little has been published on Notoedres mange infestations in this host. Reports have been published by M. M. J. Lavoipierre (1964, J. Med. Entomol., 1: 5-17) and A. Fain (1965, Acarologia, 7: 321-324) of Notoedres in other synanthropic rodent species. In Brazil, N. muris Mégmin, 1880 was observed by F. Fonseca & G. Trindade (1957/8, Mem. Inst. Butantan, 28: 59-66).

It is possible that this kind of parasitism brings about a decrease of the resistance of the hosts to other latent etiologies.

Out of 48 R. r. alexandrinus captured in the proximity of the municipality of Tiradentes, State of Minas Gerais, Brazil, from July 1987 to July 1988, 23 (47.9%) were infested by Notoedres mites. The infestation was observed on the dorsal base of the tail and extremities of the ears and paws.

A section of the infested ear was cut for histological study. The following histopathological changes were observed: (1) Pronounced hyperkeratosis and parakeratosis with consequent verrucose protusion due to thickening of the corneal area. Furthermore, nesting of degenerating mites surrounded by the stratum corneum layer was observed (Fig. 1); (2) Pronounced diffuse lymphohgranulohistiocytic exudation; (3) In some "nests", notwithstanding the absence of the parasite, intense granular exudation together with other exudation cells showing granular-fatty degeneration of neutrophils; (4) Accentuated congestion of the corion; (5) Local eosinophilia outstanding in relation to exudation (Fig. 2); (6) Neocollagenogenesis of the derma at the most inflammed areas.

Summarizing: the unspecific chronic inflammatory response showed a tendency to become purulent in certain areas.

A. Fain (loc. cit.) described N. oudemansi, parasite of R. r. alexandrinus. Although the chaetotaxy of the mites examined were similar to N. oudemansi, other morphological characters do not allow identifying them as N. oudemansi.
Fig. 1: ear of *Rattus rattus alexandrinus* showing pronounced hyperkeratosis, parakeratosis and presence of nests of degenerating mites (107X).

Fig. 2: ear of *Rattus rattus alexandrinus* showing purulent exudation in an intradermic parasitic nest (244X).