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Research Note

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

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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 synantropic rodent species. In Brazil, *N. muris* Mégnin, 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 lymphogranulohistiocytic 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 outstanded 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.*

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Fig. 1: ear of *Rattus rattus alexandrinus* showing pronounced hyperkeratosis, parakeratoris and presence of nests of degenerating mites (107X).

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