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FIRST REPORT IN ITALY OF CAPARINIA TRIPILIS (ACARINA: PSOROPTIDAE) IN AN AFRICAN HEDGEHOG (ATELERIX ALBIVENTRIS)

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Mange by *Caparinia* spp. is an ectoparasitic skin disease reported in Europe (England, Germany, Poland), America (USA, Brazil, Chile, Costa Rica), Kenya, Korea and New Zealand [1-3]. Among 5 known species of the genus *Caparinia*, only *C. tripilis* and *C. erinacei* infest hedgehogs; among them *C. tripilis* shows higher pathogenicity, especially in conjunction with other infections.

The African hedgehog (*Atelerix albiventris*) is one of the newly exotic pets which have been observed with increasing regularity in veterinary clinics, but information about its diseases is scarce. The aim of this case report is to describe for the first time the infestation by *C. tripilis* mite in a native Italian African hedgehog.

In October 2014, an adult male of African hedgehog was brought to the Dept. of Veterinary Medicine (Perugia, Italy) with a respiratory symptomatology (dyspnoea and open-mouthed breathing), periorbital oedema and diurnal restlessness. It was treated with i.m. injection of enrofloxacin (20 mg/Kg SID) and subsequent with norfloxacin 5% p.o. for 10 days. After an initial improvement, the hedgehog began to present new symptoms: pruritic dermatitis with scales and crusts on the muzzle and on the dorsal surface, loss of spines, poor appetite and lethargy. Skin scraping samples were collected and examined by microscope. The slides showed numerous mites, at all developmental stages, identified, based on the morphological features [3-4], as *Caparinia tripilis*. Because of the seriousness of mange a therapy was made with ivermectin (0.4 mg/kg) administered subcutaneously and topically (mixed 1:9 with water for topical use). The next day a further local treatment was made with Moxidectin and Imidacloprid solution spot on, but there were no improvements. After about 24 hours the hedgehog died and it was subjected to skin biopsy. Histological examination showed mild dermal lymphomonocytic infiltration, diffuse epidermal hyperplasia and severe hyperkeratosis with intracorneal neutrophilic pustules and serocellular crusts; embedded within keratin scales were present myriads of yeasts and sections of a mite with spiny cuticle and striated muscle.

This represents the first case of a hedgehog mange by *C. tripilis* in Italy. *C. tripilis* (Michael, 1889) is an astigmatal non burrowing mite of the family Psoroptidae, characterized by the presence of three long setae on the tarsi of legs III and, in males, of two typical trilobated opisthosomal excrescences behind a wide dorsal opisthosomal shield. Both sexes have a long dorsal propodosomal shield, which is wide in its median portion. Two long setae are present at its sides, reaching the opisthosomal margin of idiosoma. The male is 310 μm long; the female (400 μm) lays big elongated eggs from which larvae (160 μm) hatch and become quickly protonymphs (210 μm) and then deutonymphs (290 μm).

The introduction of exotic pets has forced veterinarians to acquire knowledge about these species; therefore, we consider it very important to point out new pathogens present in Italy, in order to allow the practitioners to have more conscious approach towards these new pets.

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