

SEM observations on morphology of tarsal claws of *Demodex brevis* Akbulatova preadult and adult (*Acarina: Demodecidae*)

M. Principato, M. Tosti

Institute of Parasitology, Faculty of Veterinary Medicine, Via S. Costanzo, 4 - 06100 Perugia, Italy

Legs of mites of *Demodecidae* family are short and strong, morphologically adapted to penetrate into hair follicles. The tarsus has claws that enable the mite to get a firm hold of the tissues and prevent it from being thrown out from the glandular duct with the flow of sebum. In this report the tarsal claws of two *Demodex brevis* females have been studied by SEM, at preadult (Principato, 1998) and adult instars, trying to point out their morphological differences. In both development instars all legs appear to have two separate tarsal claws, both ending by two or four hooks. In the preadult, the claws of the I and II pairs of legs are similar (Fig. 1); so are those of the III and IV (Figs. 2, 3); in the adult only the claws of the II and III pairs of legs are similar (Fig. 5). The two instars differentiate from each other mainly for the morphology of the claws of the II and III pairs of legs (Figs 1, 2 and Fig. 5). Besides in all legs, both of the preadult and the adult instars, one of the two tarsal claws show a hook slightly bent backwards longer than the other one (a); their function is mainly to allow the mite to creep forward, clutching at the internal wall of the sebaceous gland. Taking into account the glandular location of *Demodex brevis* in human face skin and scalp, we can assume that the morphology of the tarsal claws may determine a direct damage to the walls of the sebaceous glands, with the effect of stimulating a sebaceous ipersecretion.

