Spinose ear tick, *Otobius megnini* (Dugès, 1884) as the cause of an incident of painful otitis externa in humans

We would like to bring the following incident to the attention of members of the veterinary profession, as they have more than usual contact with the natural hosts of this parasitoid and would consequently be particularly exposed to infestation. A similar letter has been sent to the South African Veterinary Journal to alert human health professionals.

A 15-year-old girl from Pretoria experienced intermittent left ear-ache for about 7 d before she consulted her general practitioner. On aural inspection, otitis externa with debris was diagnosed. Oral cephalosporin (cefuroxime, Zinnat, Glaxo Wellcome) and a nasal and sinus decongestant (ibuprofen/psuedoephedrine, Advil CS, Whitehall) and antibiotic ear drops (framycein/gramicidin/dexamethasone, Sofradex, HMR) were prescribed. The condition did not resolve and the ear-ache was intermittently quite severe. The patient slept with her ear on a hot-water bottle and occasionally used mild paracetamol-based analgesics. Seven days later a second visit was made to the practice. At this stage the otitis externa had not cleared up and debris and wax were visible. Polyoxin B/neomycin/hydrocortisone ear-drops (Otosporin, Glaxo Wellcome) were prescribed, with instructions to return for irrigating the ear canal. On irrigation 3 days later a live, engorged, soft tick with a body measuring 8 mm. The finally engorged nymph crawls from the ear, drops to the ground and develops into the adult, and the life cycle is repeated. The patient visited a friend at the time of the incident, a Grade 9 scholar in Pretoria living in the city. She is a keen equestrian and visited a riding school east of Pretoria once a week, where she also groomed her horse. It is probable that she acquired the infestation there. According to Oberholser and Ryke this condition is so painful in humans that development up to the 2nd-stage nymph is unlikely. It is estimated that the patient in this case became aware of the tick after the larva had engorged and moulted, and that the 1st-stage nymph started its intermittent feeding during the 3 weeks that she had experienced discomfort. Although the patient was in the process of writing her final Grade 9 examinations at that stage, she managed to do so without missing one paper.

Spinose ear tick infestation should be borne in mind as a differential diagnosis whenever painful otitis externa with wax and debris that is not responsive to conventional treatment is encountered in humans, domestic stock or companion animals. In rural communities and in the veterinary professions, where more intimate contact with livestock occurs, a higher human incidence could be expected. Mechanical removal appears to be the only treatment as, at present, no human aural medication with an efficient acaricide is available on the market. The problem is further complicated in that it is contraindicated to flush an inflamed ear canal. One preparation, Cerumol (Pharmacia) ear drops, is formulated with 2.4% paradichlorobenzene (the active principle of the domestically well-known ‘moth balls’) in arachis oil but its efficacy in relation to ear ticks has, to our knowledge, not been proven. Martindale is rather ambiguous as to its efficacy as an insecticide/acaricide, comparing it only

To the editor – Aan die redakteur

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with the pesticide orthodichlorobenzine. The need for a safe human aural preparation with one of the modern, safe, highly effective acaricides (e.g., a pyrethroid) is clearly indicated. Fortunately this soft tick species feeds intermittently and does not attach firmly and it is, therefore, usually possible to flush it from the ear canal.

Among veterinary medicines, the only acaricidal aural preparations listed are Surfacticide and Oridermyl (Centaur (Bayer AH)), both formulated with lindane. There is no specific preparation registered for spinose ear tick, although most of the organophosphor, pyrethroid and other acaricides as well as the new systemic endectocides should be effective. The need to advise riding schools and all organisations where there is close contact between people, horses and other domestic stock, to control this scourge in animals, is obvious.

References

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