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Oral nematode infection of tarantulas

SIR, – We would like to report an oral nematode infection of Theraphosidae spiders, that is, tarantulas, recently identified from several collections in the UK and on mainland Europe

Veterinary interest and involvement in captive spiders is not new (Frye 1986, Cooper 1987). Female spiders may live for over 20 years and be expensive to acquire. Theraphosids are also increasingly kept in zoological collections and involved in captive breeding programmes (Pizzi 2001). *Brachypelma* species (such as the popular Mexican redknee tarantula) are currently listed in CITES appendix II, and *Poecilotheria* species (Asian ornamental tarantulas) are likely to be added soon. The problem described may adversely affect captive breeding programmes and any future efforts at reintroductions.

The infection initially manifests with anorexia, gradually increased lethargy, progressing to a huddled posture, eventually death occurs several weeks, or even months, after signs are first noted. Macroscopically, a white discharge between the mouth and chelicerae may be noted, particularly during the later stages of infection (Fig 1). Microscopically, this consists of a mass of extremely small, motile male and female nematodes, less than 0.5 to 3 mm in length.

The disease has been noted in numerous captive-bred and wild-caught terrestrial and arboreal species from the Americas, Asia and Africa. The source of infection and mode of transmission are so far unknown, but collections with infections have reported spread of the infection between separate enclosures in the same room, once the infection is first noted. The nematodes are so far been classified as belonging to the Panagrolaimidae family (phylum Nematoda, order Rhabditida). Histopathology has demonstrated secondary, or possibly symbiotic, bacterial

invasion as a complication. Attempts at treatment with different combinations of benzimidazoles and fluoroquinolone antimicrobials have not appeared to prolong survival.

Other nematode species belonging to the family Panagrolaimidae have zoonotic potential, with human cases occurring as infestations through deep wounds (Gardiner and others 1981, Geraert and others 1988). Large spiders, such as the Goliath bird-eater (*Theraphosa blondi*), may have fangs up to 3 cm long, and this makes secondary infection of bites a possibility.

We advise that, until the mode of transmission has been elucidated, veterinarians dealing with Theraphosidae spiders in zoological collections institute a minimum quarantine period for newly acquired spiders, in a separate room, of at least 30 days. This should be prolonged in anorexic spiders approaching ecdysis (moulting), until resumption of normal feeding behaviour after ecdysis. Practitioners dealing with these species as pets should also be aware of this infection.

Due to the zoonotic risk and unsuccessful therapies, euthanasia of all affected spiders is strongly advised. As described by Pizzi and others (2002), humane euthanasia is best performed with isoflurane in an airtight container, followed by immersion in 70 per cent ethanol to enable later histology if required. Euthanasia by direct immersion in alcohol, as commonly used by many entomologists, is not regarded as humane. R P has observed sustained motility in tarantula spiderlings for over five minutes. Spider preservation in buffered formalin is not recommended, as cuticular hardening makes histological sectioning very difficult, even after softening in acid. However, preservation of nematodes is best done in 4 per cent formalin.

We are keen to hear of any occurrences of this infection, and the spider species involved, to further elucidate the transmission of this emerging problem.

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Supply of POMs

SIR, – Since the publication of the recommendations of the Competition Commission and the Office of Fair Trading (OFT) (VR, April 19, pp 482-484, May 10, p 574), we are at last seeing the profession awake and begin to respond. However, notwithstanding a legal challenge or an appeal to the European Court of Human Rights, it would appear that the recommendations will become law in the near future. We have all become somewhat accustomed over the years to the Government's attitude to the agricultural industry – which has all but brought it to its knees – and it would appear that the veterinary profession is next on the agenda. In fact, if truth were known, it is really a continuation of a process of deregulation of the professions that started in the late 1970s with the Monopolies Commission inquiry into professional advertising.

There are inherent problems with the recommendations submitted to the OFT. One aspect has been highlighted by Arbutuckle in his letter (VR, May 24, pp 667-668): that of animal welfare on bank holidays and at weekends. I have received comments from those who believe that the recommendations will have little impact on the profession, as clients will not be bothered to accept the offer of a prescription and pharmacies will not stock a significant amount of veterinary medicines. To a certain extent that may be true. However, the advent of supermarket 'in-store' pharmacies may have a greater impact in our 'one-stop shop' society. If a trickle becomes a flood, where will we all be in a decade? I personally do not want to see a profession where those with limited incomes are terrified of consulting a veterinary surgeon because the consultation charge is equivalent to the weekly state pension. Where will animal welfare be then? There may be some who think that I am dramatising, but, there again, a decade ago I did not think that I would see a healthy six-month-old cat being given a pre-op blood test before castration – all in the name of quality medicine!

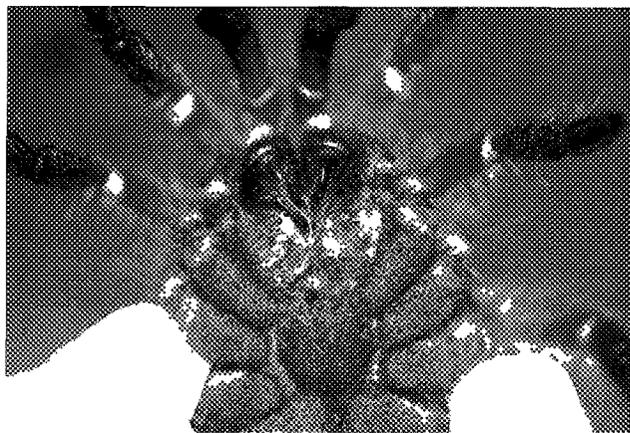


FIG 1: Oral Panagrolaimidae nematode infection in a king baboon tarantula (*Citharischus crawshayi*)



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