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Sir,

Ophthalmia nodosa secondary to tarantula hairs
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Tarantulas are large spiders covered in a layer of velvety hairs, found in tropical and subtropical areas. Tarantulas belong to the Theraphosidae family, a subgroup of Mygalomorph¹ (Greek word mygale, field mouse!). They are regarded as the largest and hairiest spiders of all and therefore, to most enthusiasts, the most interesting species to keep. Over the last decade, they have become increasingly fashionable as pets in Britain, because tarantulas are easily available, interesting to watch, relatively slow moving, have a long life span (up to 20 years) and tolerate a certain amount of gentle handling.

All tarantulas are venomous and those that have less potent venom are particularly popular, including Chilean Rose (*Grammostola spatulatus*), Chilean Beautiful (*Grammostola Cala*), Mexican Red-Kneed (*Euathlus smithi*), etc.¹ Their defence relies mostly on painful bites with their erect fangs and barbed urticating hairs (hairs that can cause ocular, dermatological and respiratory irritation). These hairs are released when the tarantula panics by any gesture, seen as provocation. The tarantula raises its hind legs and vibrates rapidly across the dorsum of the abdomen,^{2,3} where these hairs

are located at a density of approximately 10 000/mm.² This stimulates a shower of urticating hairs spraying towards the predator and allows the spider to escape.

Furthermore, many tarantulas are notoriously unpredictable! This potentially harmful defensive behaviour is often not the highlight to the buyer.

Case report

A 14-year-old boy presented to our department with a 4-month history of intermittent ocular irritation. He had a few courses of topical antibiotics prescribed by his general practitioner, with no improvement. He had good general health with no suggestion of juvenile arthritis or autoimmune disorders. On direct questioning, we discovered his hobby was to look after his pet which he very proudly acquired 2 years ago—a tarantula—Chilean Rose. He recorded the tarantula had bitten him ('just like a wasp sting') and sprayed hairs to him on occasions during handling, which did not cause any concern.

On examination, his vision was 6/6 in both eyes. He had no facial erythema or lid swelling. There was mild follicular conjunctivitis, multiple tiny subepithelial corneal opacities, with mild anterior uveitis in the left eye, associated with a couple of large 'mutton fat' keratic precipitates. Careful slit-lamp biomicroscopy of the cornea anterior segment and gonioscopy did not show any tarantula hairs. Fundoscopy showed an area of inactive chorio-retinal lesion in the peripheral retina, with no evidence of vitritis.

He was started on topical steroid treatment and responded well. Treatment is continuing. He remained completely symptom-free. Family and patient have been made aware of the potential chronicity^{2–4} of his eyes condition, but they have no intention of giving up the tarantula.

Comment

Ophthalmia nodosa was first described in 1904 as granulomatous nodules found on iris and conjunctiva in response to capillary hairs,⁵ and now it is a term to describe an essentially ocular reaction to vegetation or insect hairs.^{2,3,6} There are four types of urticating hairs, distinguishable by their pattern of barbs. Type III hairs are approximately 0.1–1.3 mm long, have shafts with a sharp-pointed head and numerous barbs. They travel like arrows and are the most apt to penetrate deeply into tissues. Tarantula hairs resemble sensory setae of caterpillars, are both type III,^{2,6,7,11} and they are known to migrate relentlessly and cause multiple foci of inflammation in all levels of the eye.^{2,6–8} Tarantula hairs

have been shown to penetrate into the dermal layer of human skin and through Descemet's membrane.⁹ Eye rubbing facilitates this process further.

They are described as immediate skin urticaria, chronic kerato-conjunctivitis,^{2,4,6} intracorneal hairs^{4,10} with corneal granuloma, chronic iritis,^{2,4,6,10} vitritis $\pm$ cystoid macular oedema, papillitis³ and punctate chorioretinitis.⁸ Secondary glaucoma and cataract have also been reported.⁸ The chorioretinal lesion is believed to represent the reaction due to intraocular migration of hairs through ocular tissues. The management includes removal of the offending hairs, which is often not possible in most cases. The use of topical steroids without antibiotics has proved to be an effective regimen. Therefore, it is reasonable to assume that it is a hypersensitivity reaction to tarantula hairs rather than an infective element.

Keeping tarantulas is one of the fastest growing pet hobbies and advertised as harmless and 'a true nature's jewellery' to have. Often, they are bought for children as a gift, unaware of its potential risk. Ophthalmia nodosa due to tarantula hairs is rare but potentially devastating. Very young children are seen frequently handling them, without any protection (eg www.freewebz.com/billyspets/). Tarantula pet owners and young owners' parents should be forewarned on the potential ocular dangers associated with handling these spiders. Protective gloving and goggles are essential. It is only by raising awareness in this issue that further cases can be prevented.

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Sir,

A case of orbital myositis secondary to orbital cellulitis in a child
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Orbital myositis can be defined as a nonspecific localised orbital inflammatory process in which one or more of the extraocular muscles may be involved.¹ Clinically, it is characterised by acute pain exacerbated by eye movement.² Other symptoms such as ptosis,³ proptosis and peribulbar swelling⁴ can also occur. Globe retraction on attempted eye movement away from the direction of the action of the involved muscle is a characteristic sign.¹ Treatment with systemic steroids causes rapid resolution.^{2,5}

Case report

A 6-year-old Caucasian boy was seen in the eye casualty complaining of a 2-day history of left-sided pain, photophobia and peri-orbital swelling. This was preceded by a fever a few days previously. There was no other ophthalmic history of note. He had no history of head injury, but there was a history of sinusitis. He was on no medication and had no known allergies. There was