

CASE REPORT

First report of clinical presentation of a bite by a running spider, *Philodromus* sp. (Araneae: Philodromidae), with recommendations for spider bite management

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This article describes the clinical progression of symptoms over a period of 5 days of a bite inflicted by a *Philodromus* sp. spider. Commonly known as 'running spiders', these are not considered to be harmful to humans. This report, however, is the first description of an actual bite by a member of this group of spiders showing cytotoxic envenomation. Management of the bites should be as recommended for other cytotoxic spider bites.

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The effect of spider bites on humans is known for only a very few spider species in South Africa (SA), relative to the large number of species that occur in southern Africa and that very seldom come into contact with humans.^[1] We report on the effects of a bite by a running spider in the genus *Philodromus*, commonly found in trees, shrubs and grass.

Case report

A 25-year-old woman sustained a spider bite on her left thumb on 8 May 2016 at 18h00, while taking down washing from a washing line in the garden. The bite was described as feeling like an 'electric shock' through the thumb and was extremely painful. Painkillers (tramadol hydrochloride/paracetamol) were taken to alleviate the symptoms.

The spider was caught and later identified as a species of the genus *Philodromus* (Araneae: Philodromidae), commonly known as running spiders (Fig. 1).



Fig. 1. Species of running spider of the genus *Philodromus*, captured after biting.

At 09h00 on 9 May, the thumb was still extremely painful and blisters had started to appear (Fig. 2, A). Two faint puncture marks were visible below the first blister, which appeared above the actual site of the bite. At 15h00 on 9 May, three blister areas were clearly visible (Fig. 2, B), not associated with the bite site, and the thumb was still extremely painful.

On 10 May, 40 hours after the bite, two puncture marks were clearly visible below the upper blister but no new blistering had appeared (Fig. 2, C) and the toxic effects had not spread further down the thumb towards the palm. Pain had subsided, but the thumb was sensitive to touch. Later on 10 May, 45 hours after the bite, the upper blister area showed subepithelial haemorrhagic necrosis and the puncture marks were clearly visible (Fig. 2, D). The pain had subsided and painkillers were no longer needed.

On 11 May, 68 hours after the bite, the blister on the outer side of thumb was no longer visible but the puncture marks were still clearly seen. Necrosis of the upper blister had not progressed, and there was no ulceration (Fig. 2, E).

On 13 May, 112 hours after the bite, the upper blister area had started healing and the lower blister was no longer visible, but the puncture marks were still clearly seen (Fig. 2, F).

Case management and treatment was according to best practice as recommended for cytotoxic spider bites, i.e. prevention of secondary infection.^[2-4]

Discussion

Philodromid spiders are free-living hunters. They capture their prey by lying in ambush with extended legs. Their movements are erratic, and with their claw tufts and scopulae they are able to move around swiftly on the substrate. They usually run fast and pursue their prey with agility. Most have cryptic coloration blending in with their surroundings. Their colour varies from white to pale cream and from reddish brown to greyish brown, frequently with a mottled appearance or longitudinal bands or chevrons on the



Fig. 2. Progression of the clinical symptoms of the spider bite. (A) 9 May, 15 hours after the bite – two puncture marks are faintly visible below upper blister area; (B) 9 May, 21 hours – three blister areas clearly visible, apparently not associated with the bite site; (C) 10 May, 40 hours – two puncture marks below upper blister now clearly visible; (D) 10 May, 45 hours – upper blister area appearing necrotic, puncture marks clearly visible; (E) 11 May, 68 hours – all symptoms subsided but two blisters and the puncture marks still clearly visible, blister on outer side of thumb no longer visible; (F) 13 May, 112 hours – only the upper blister and puncture marks still visible.

abdomen. Their bodies are slightly flattened and clothed with soft recumbent setae. The eight eyes, equal in size, are arranged in two rows (4:4). The legs are directed sideways, with legs I, III and IV almost the same length and leg II usually longer. Their body size can vary from 3 to 16 mm in length.^[1] Ten species of the genus *Philodromus* are known in SA. They are free-living plant dwellers found on the trunks of trees and in low bushes and herbage, where they play an important role as biological control agents feeding on different pest species. They are not commonly found in houses or buildings. This is the first reported bite in SA by a member of the family Philodromidae.

Avoidance of spider bites relies mainly on common sense, awareness and an understanding of their behaviour. The common spiders of medical importance in SA are listed in Table 1, with a summary of their key attributes.^[1,5-7]

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Table 1. Spiders of medical importance in South Africa

Name of spider	Key identifying features	Geographical distribution	Usual habitat, e.g. in/outdoors, peridomestic	Type of toxin, i.e. cytotoxic, neurotoxic	Clinical management
Black button spiders/black widow spiders Theridiidae <i>Latrodectus</i> spp.	Black/brown with red markings on or under the abdomen	Four spp. occurring in different areas	Not so common in houses, found in the field and crops	Neurotoxic	Antivenom, treatment of symptoms (pain, cramps, fever, nausea, vomiting, etc.)
Brown button spiders Theridiidae <i>Latrodectus geometricus</i>	Cream to black with red hourglass marking under abdomen	Widespread introduced species	Under windowsills or garden furniture, behind drain pipes, in outside toilets	Neurotoxic (less venomous than black button)	Antivenom only sometimes needed, treatment of symptoms (pain, cramps, fever, nausea, vomiting, etc.)
House sac spiders Eutichiuridae <i>Cheiracanthium furculatum</i>	Cream with shiny black mouthparts	Widespread	Often found indoors in folds of curtains or door frames	Cytotoxic	Extensive erythema or necrosis. Prevention of secondary infection
Violin spiders Sicariidae <i>Loxosceles</i> spp.	Brownish with violin-shaped markings on the carapace	Different spp. with restricted distribution	Found in dark places indoors, behind pictures or boxes, in clothing or shoes	Cytotoxic	Extensive erythema and necrosis. Prevention of secondary infection is critical