

The bite of a bird-eating spider *Lampropelma violaceopedes*

by *B.L. Lim and C.E. Davie*

Division of Medical Ecology and
United States Army Medical Research Unit,
Institute for Medical Research,
Kuala Lumpur.

ENVENOMATION through bites of poisonous Arachnida, particularly spiders, has rarely been reported in Malaysia. Speculations have been made that several of the large tarantula-like spiders in Malaysia possess highly potent venom (Keegan et al 1964 and Tweedie, 1951), but no human cases have been reported previously.

One of these large Malaysian spiders is the common "bird-eating spider", *Lampropelma violaceopedes* (Mygalomophae). This spider is widely distributed throughout the country. It nests in holes on banks of forest pathways, in tree holes about 5 - 10 feet above ground level and in crevices in rocks. It feeds on arthropods, such as scorpions, crickets, etc. and birds which it drags into its nest to eat in the wild. According to the aborigines (Orang Asli), this spider is very dangerous and they believe that its bite is likely to cause death.

Lim (1964) performed some feeding experiments with this particular species of spider. The spider which was studied lived for five years in captivity. During this period the spider was fed principally on white mice. White mice, five grams in weight, were killed in less than four minutes after a bite. Those that weighed 10-12 grams were killed within 7-10 minutes, and a wild tree mouse, *Chiropodmys gliroides*, which weighed 20 grams, was killed within 10 minutes. Common house sparrows, *Passer montanus malaccensis* with average weight of 25 grams, were killed immediately after they had been attacked.

Lim (1964) concluded that birds were less resistant to this spider's bite than were small mammals. It appears that the response to the toxicity of the spider's bite is related to the size of the victim as well as its sensitivity to the venom.

One of our field assistants, Mr. Chai Koh Shin, was

bitten by this spider. An account of the accident, the symptoms and reaction of the victim, is given below. This constitutes the first recorded case report of man being bitten by a "bird-eating spider" in Malaysia.

Case Report

At 7.30 p.m. on 12 November 1968, while collecting specimens of mammals at Kampong Tamok near Bekok, Johore, a 22-year-old Chinese laboratory assistant, was bitten on the left 3rd finger by a large "hairy" spider (Plate 1). He had accepted the spider from an Orang Asli (Aborigine) who was paid to collect specimens of mammals for the Bio-Medical Museum at the IMR.

While arranging specimens in the vehicle prior to his departure from the village, he inadvertently picked up the polyethylene bag containing the spider in order to make room for cages. He suddenly felt a severe "biting" pain of the distal portion of the left third finger (Plate 2).



Plate 1 — Bird-eating Spider (*Lampropelma violaceopedes*): It measures five inches across the span of its legs.

His initial impression was that a rat had escaped from a cage and bitten him. He expressed blood from the wound by compressing the finger proximal to the bite. Within 30 seconds, he noted a constricting sensation within the chest which seemed to vary in intensity with a crescendo-descrescendo pattern. A tourniquet was placed around the finger and an Orang Asli sucked blood from the bite. The patient experienced no headache, no paresthesia and no alterations of consciousness. The finger and hand were diffusely swollen within 10-15 minutes.

He was taken to Segamat Hospital about 1½ hours after the bite. Physical examination at the time of admission revealed only edema and erythema of the left third finger. Blood pressure, pulse and respiration were normal on admission to the hospital and at hourly intervals throughout the night. Treatment consisted of an injection of local anesthesia at the site of the bite and an injection of penicillin in the right arm. He was discharged from the hospital the following morning without further treatment. After discharge, he experienced mild, migratory nyalgia and headache for 36-48 hours but was entirely asymptomatic by 15 November 1968, 72 hours after the bite.

Physical examination 36 hours after the incident revealed no abnormalities except for slight, residual swelling of the affected hand and finger. Two small lacerations, 1-2mm apart, of the distal aspect of the left third finger were healing without apparent superficial infection.

Laboratory studies at the time of the physical examination revealed the following:

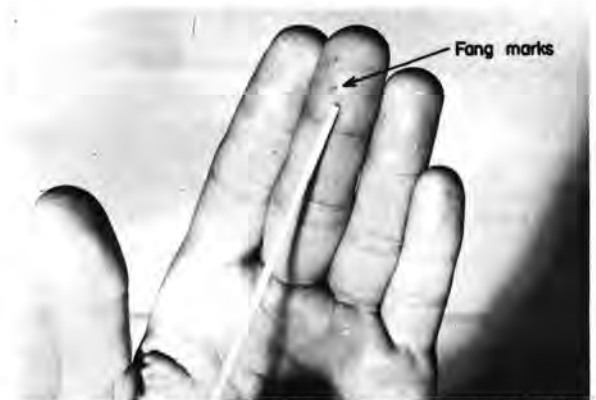


Plate 2 — Left third finger showing the fang marks of the spider's bite.

THE BITE OF A BIRD-EATING SPIDER

1. Hemogram	
Hematocrit	: 46%
WBC	: 10,600
PMN	: 54%
Bands	: 4%
Lymphocytes	: 31%
Eosinophiles	: 8%
Basophiles	: 3%
2. Sedimentation Rate	: 24mm/hour
3. Urinalysis	
pH	: 5.0
Sp. gravity	: 1018
Albumin	: Negative
Sugar	: Negative
Acetone	: Negative
Bilirubin	: Negative
Occult Blood	: Negative
Microscopic	: Not remarkable

Serum bilirubin, serum transaminases and serum lactic dehydrogenase were within normal limits.

Physical examination and laboratory tests failed to reveal evidence of hemolysis or muscular damage secondary to this spider bite. The systemic symptoms (constriction of the chest, headache, and myalgia) are difficult to evaluate because they could have been manifestations of anxiety. The local manifestations of erythema and edema, which did not progress to obvious tissue necrosis, are the only objective findings that can be attributed to the bite of this spider.

REFERENCES

- Keegan, H.L., Weaver, R.E., Toshioka, S. and Matsui, T. (1964). Some venomous and noxious animals of East and Southeast Asia. *406th Medical Laboratory* (Special report).
- Tweedie, M.W.F. (1951) *Poisonous animals of Malaya*. Malaya Publishing House, Limited. Singapore.
- B.L. Lim (1964) The Bird-eating Spider. *Mal. Nat. J.* 18: 20-25