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NOTES

I. A case of snake bite by the Shore Pit Viper, *Trimeresurus purpureomaculatus* (Viperidae).

Well documented accounts of snake bites are rare, despite their obvious value. It is of particular value to record such data for dangerous snakes, including those not known to have caused mortality, as the first death by a snake species always creates a need for greater knowledge of the snake concerned and the effects of its venom. The Shore Pit Viper, *Trimeresurus purpureomaculatus*, is a member of a genus described as "Dangerous (although not necessarily deadly) to man." (TAYLOR, 1965). As no documented account of a bite by this species appears to be available details of such an instance are given here.

The Shore Pit Viper, *T. purpureomaculatus*, is found in Southern Thailand, south of the Isthmus of Kra, also reaching Malaya and Southern Burma (TAYLOR *loc. cit.*). It is found on the sea shore, usually in mangrove or other coastal vegetation (TWEEDIE, 1961). It is more commonly found on small off-shore islands than on the mainland.

A specimen of this snake was found on a mangrove crested beach on Phuket Island on the 16th. August 1974. It was inactive beneath the loose bark of a dead tree trunk, five feet from the ground. The specimen compares very well with the descriptions of *T. purpureomaculatus* in TAYLOR, and TWEEDIE (*locs. cit.*) and identification has been confirmed at the Centre of Thai Reference Collection, A. S.R.C.T., Bangkok. The specimen is a small one measuring snout to vent 330.7 mm., and tail 60.9 mm. The species can attain a total length of 900 mm. (TWEEDIE, 1957; TYLOR, 1965).

The above specimen was kept in captivity until the 14th. September 1974 when it was preserved for identification purposes. During this period it remained extremely pugnacious. It fed continuously on house geckos and young pink rats and sloughed its skin complete twice.

At 19.32 hours (hereafter twenty four hour clock figures given only) on the 10th. September 1974 the senior author was bitten in the left thumb

causing immediate intense local pain. The snake was seen to strike and the hand removed in time to avoid an immediate second strike which was attempted. The wound was well sucked orally and washed thoroughly within a minute or two. After three minutes dark purple swellings occurred around the fang punctures and the thumb became stiff. The patient retired to an air-conditioned room. A tourniquet wus applied to the thumb for ten minutes and then removed due to excessive swelling and placed above the elbow for a further ten minutes, after which it was removed and the large vein in the armpit was help with pressure for seventeen minutes. No tourniquet was applied after this.

Symptoms are summarised below in note form :

10.9.74. 19.32–20.32 : Intense pain and throbbing in thumb followed by thumb becoming rigid. Thumb base, first finger and back of hand swelling. Itching and burning sensation in palm. Four fingers icy cold.

20.32–21.32 : Whole hand swollen, four fingers icy cold, swellings to wrist and subsequently half way up forearm. Patient felt very cold. At 20.39 patient to local hospital for advice, no treatment given and swelling described as lymphatic in character. Experienced great discomfort out of air-conditioned room.

21.32–22.32 : Patient returned to air-conditioned room at 22.00. Intense pain in thumb, back of hand and forearm. Swelling to elbow. Mild pain killing tablet taken, and subsequently repeated infrequently.

22.32–23.32 : Swelling unaltered. Patient subsequently experiencing disturbed, painful, night.

11.9.74. 06.00 Swelling and pain unaltered, but by 08.10 elbow joint swelling whilst swelling in thumb decreasing, fingers hot. At 09.45 patient left air-conditioned room very briefly for photograph (see Fig. 1) but felt nauseous, hot, prickly and dizzy and returned to air-conditioned room. Swelling to mid upper arm. Noticeable instant increase in swelling and pain whilst out of air-conditioning.

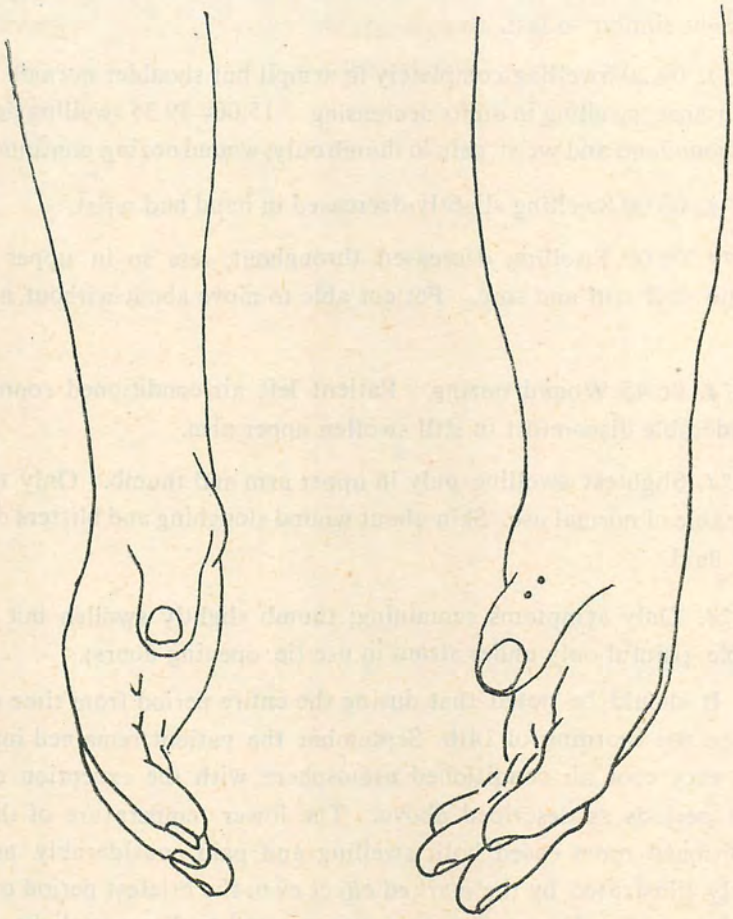

Fig. 1. Swelling in left arm 14 hours and 13 minutes after a bite from the Shore Pit Viper, *Trimeresurus purpureomaculatus*. Fang marks indicated. Traced from a photograph.

During 12.55–18.55 blisters about wound infrequently lanced to release clear fluid. At 18.55 from thumb to arm pit considerably swollen, inflamed about elbow; finger joints very swollen and stiff. At 22.30 antibiotic powder placed on oozing wound to prevent secondary infec-

tion and application repeated thereafter. Patient subsequently experienced night similar to last.

12.9.74. 09.20 Swelling completely to armpit but shoulder normal. Pain less intense, swelling in digits decreasing. 15.00–19.35 swelling decreasing from hand and wrist, pain in thumb only, wound oozing continuously.

13.9.74. 08.00 Swelling slightly decreased in hand and wrist.

14.9.74. 08.00 Swelling decreased throughout, less so in upper arm. Thumb still stiff and sore. Patient able to move about without nausea etc..

15.9.74. 06.45 Wound oozing. Patient left air-conditioned room, felt considerable discomfort in still swollen upper arm.

16.9.74. Slightest swelling only in upper arm and thumb. Only thumb incapable of normal use. Skin about wound sloughing and blisters oozing clear fluid.

20.9.74. Only symptoms remaining; thumb slightly swollen but quite flexible, painful only under strain in use (ie. opening doors).

It should be noted that during the entire period from time of the bite to the morning of 14th. September the patient remained inactive in a very cool air-conditioned atmosphere with the exception of two short periods as described above. The lower temperature of the air-conditioned room eased both swelling and pain considerably as was clearly illustrated by the marked effect even the briefest period outside the room had. The swollen area was exposed to direct sunlight on one occasion (at 09.45) causing severe pain and immediate excessive swelling.

The above effects of the bite of the Shore Pit Viper are considered considerable in view of the fact the patient was a fit and healthy male of average size (height 180 cm., weight 73.4 kg.). As this snake grows to well over twice the length of the specimen concerned here it would appear to be a potentially dangerous species, at least in terms of a more efficient bite being administered (possibly striking more than once) to a smaller or less healthy victim.

It is noted that an antivenine is produced for the closely related Green Pit Viper, *T. popeorum*, the bite of which causes lymphatic swellings amongst other symptoms. Whilst there is apparently no necessity for a specific antivenine for the infrequently encountered Shore Pit Viper (as none is in fact produced) it would seem worthwhile to examine the application of that of the Green Pit Viper for use in case of bites of the former.

REFERENCES

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II. Re-discovery of *Riopa haroldyoungi* Taylor, 1962.

The second known specimen of *Riopa haroldyoungi* Taylor. 1962, was collected in December of 1974 by a malaria eradication team, in Tambon Ratanawapi, Nong Khai province, on the highway between Phon Phi Sai and Nong Khai. Collected during the day, it was evidently a road kill, judging from the slightly damaged condition of the left side of the head and the skin of the middle back. The Nong Khai locality is more than 500 km. from the type locality (the base of Doi Suthep, Chiang Mai province), suggesting that the species may not be extremely rare in nature, but rather that it has been so seldom collected due to secretive habits and habitats.

The Nong Khai specimen (Way♯182), now deposithed with the National Reference Collection at the Applied Scientific Research Corporation of Thailand (ASRCT), was initially identified by the author in January of 1975; the specimen was subsequently sent to Dr. E.H. Taylor of the University of Kansas, the author of the species. Confirming the