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Ovophis species bite in Thailand

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Aim and objectives: *Ovophis* species are venomous pit viper snakes found in Asia. The objective of this study was to characterize the epidemiology, clinical features, and treatments for *Ovophis* bites.

Methodology: Snakebites from *Ovophis* species reported to Ramathibodi Poison Center between January 1, 2011, and December 31, 2022, were analyzed through a retrospective cross-sectional study.

Results: The study identified two *Ovophis* species in Thailand: *Ovophis monticola* (OM) and *Ovophis convictus (*OC). Among the cases, there were 34 instances of OM bites and 2 cases of OC bites. OM was mostly found in the northern part (66.7%), while OC was found exclusively in the southern part. The most common time of the day for snakebite was during daylight hours (mode: 11 AM), while the majority of bites occurred in April (22.2%). Patients were predominantly male (69.4%), with a median age of 30 years (interquartile range (IQR) 17.5-51.5). The median time from envenomation to hospital presentation was 2 hours (IQR 1-4.25). Most bites were located on the patients' fingers (61.1%). Approximately half of the patients identified fang marks at the bite sites (52.8%). Nearly all patients reported swelling (97.2%). Most bites resulted in grade-2 swelling (34.3%). Necrosis occurred in one case. Systemic effects of coagulopathy were observed in 28 cases (77.8%), with a median onset of 23.5 hours (IQR 12-35) after the bite. The mean duration of coagulopathy was 31.25 hours (IQR 2-82). One case showed systemic bleeding, indicating difficulty in stopping the bleeding after blood sampling. Death was not reported in our study. Thirty patients (83.3%) received antivenom treatment, with a total of 115 doses, including green pit viper antivenom (61 doses), polyvalent hematotoxic snake antivenom, and Malayan pit viper antivenom. The median dose of antivenom was 2.5 doses (IQR 1-6). All cases were admitted with the median hospital stay of 4 days (IQR 2-6).

Conclusions: *Ovophis* snakebites frequently led to coagulopathy, with mild swelling being the primary local effect. Systemic bleeding was infrequent. Monitoring patients for at least 24-48 hours is advisable to identify coagulopathy onset. Importantly, no mortalities were reported, and coagulopathy was effectively treated using antivenoms.