

**Malayan Pit Viper Envenomation and Treatment in Thailand**

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**BACKGROUND:** Malayan Pit Viper (MPV), or *C. rhodostoma* is a hematotoxic snake found in all regions of Thailand and many countries in South East Asia. Treatment of MPV envenomation varies between facilities due to their capabilities.

**METHODS:** This study was a retrospective review involving MPV envenomation cases reported to Ramathibodhi Poison Center (RPC) from 1 July 2016 to 30 June 2018.

**RESULTS:** Of the 169 patients (median age 41.5 years, range 1.3 to 87.0 years) bitten by a MPV, the most common bite site was the foot (29.59%). Most patients reached hospital within 1 hour of being bitten. 144 cases (85.21%) had local effects from envenomation and there were 28 cases (16.57%) with severe local complications including tissue necrosis (7.69%) and compartment syndrome (7.69%). Systemic effects such as haemorrhage and abnormal hemostasis were found in 144 cases (88.17%). There were abnormal VCT in 125 cases (73.96%), unclotted 20 min-WBC in 59 cases (34.91%), low platelet counts (<50,000/mm<sup>3</sup>) in 69 cases (40.83%), and prolonged INR (>1.2) in 51 cases (30.17%) which showed median onset of abnormalities at 7, 10.5, 4 and 9 hours respectively. Patients who reached hospital early had the slowest abnormal hemostasis presentation of VCT, WBCT, platelet count and INR at 31.5, 68.5, 100 and 89 hours respectively. Fastest hemostasis abnormalities were found in VCT tests. A total of 326 doses of antivenom were given in 145 cases (86.39%). There were only 5.52% of antivenom doses administered without Thai Red Cross indications. Allergic reactions from antivenom, including rash, chest discomfort, and anaphylaxis were found in 33.10% of cases. 123 cases (72.78%) received antibiotics and 32 cases (18.93%) needed surgical management including debridement and fasciotomy.

**CONCLUSIONS:** Most patients who were bitten by MPV had local and systemic effects from envenomation, which may include delayed onset of abnormal hemostasis.