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Retroperitoneal haemorrhage following a hump-nosed viper (*Hypnale hypnale*) bite; a late presentation

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Introduction

Hump-nosed viper bite is common in Sri Lanka, accounting for 27-35% of all snake bites (1,2). Hump-nosed viper is categorized as a “non-lethal snake” but spontaneous systemic bleeding occurs in 18% patients (2). There is no effective antivenom developed against *Hypnale hypnale* venom. Current literature states that the hypnale coagulopathy lasts for one to three weeks (3). We report a case of coagulopathy, manifested late, in a patient with hump-nosed viper bite. Search of PubMed using MeSH terms “snake”, “hemorrhage” and “viper” did not reveal any literature to support this type of late presentation.

Case Report

A, previously well, 49-year old housewife was admitted with an acute onset swelling and pain of left lower limb associated with lower abdominal pain and syncope of one day duration. There was no history of fever and her last regular menstrual period

was 11 days ago. There was a wound over her right thumb following a hump-nosed viper (*Hypnale hypnale*) bite five weeks back. She gave no history of a fall or trauma to the abdomen.

On admission she was in pain but not pale, febrile or dyspnoeic. Pulse rate was 120/min and the respiratory rate was 28/min. Her blood pressure was 90/60 mmHg. The left lower limb was grossly swollen but it was not warm or had no erythema. There was no inguinal lymphadenitis. Her lower abdomen was tender and there was guarding. Per rectal examination did not reveal any contact bleeding or masses and per vaginal examination was not done because of intense pain.

Initial investigations showed haemoglobin of 9.2g/dL, white cell count of $15.4 \times 10^9/L$ (Neutrophils 78%), platelet count of $200 \times 10^9/L$, APTT of 110 seconds and INR of 1.5. Ultrasound scan revealed a round solid mass measuring 7.1x 5.5 cm, situated anterior and left to the bladder. Other abdominal and pelvic organs were normal and there was a mild ascites.

The patient's condition did not improve despite supportive care. Four units of fresh frozen plasma were infused. Vitamin K 10 mg IV 12 hourly was started.

CT scan revealed an extraperitoneal lesion in the pelvis suggesting the possibilities of either a haematoma or a soft tissue neoplasm (Figure). Subtle hypodensity was seen in the left common femoral vein. CT angiogram of the lower abdomen and thigh vessels revealed no abnormality. Duplex scan of the left lower limb showed an echogenic thrombus in the left common femoral vein extending into left popliteal vein. A thrombus was seen in the great saphanous vein as well. The inferior vena cava was patent.

An exploratory laparotomy was performed and a large retroperitoneal haematoma extending into lower anterior abdominal wall was found. The patient was given fresh frozen plasma to correct bleeding tendency and APTT and PT/INR were monitored. Her clinical features improved while on treatment and she was discharged on the 10th day of the admission. Her APTT and PT/INR became normal one week following discharge and repeat ultrasound scan of the abdomen revealed an organizing retroperitoneal haematoma.

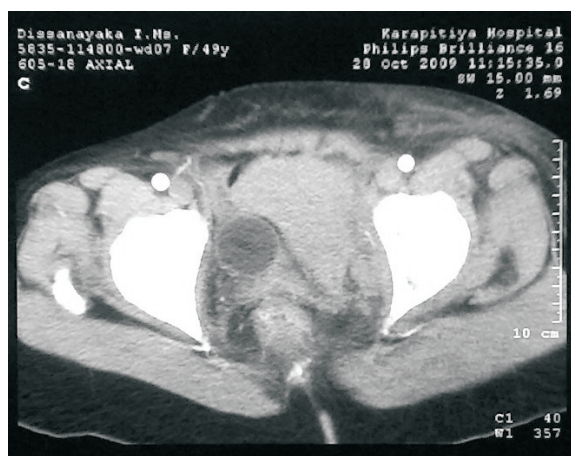


Figure - CT scan of the pelvis showing a retroperitoneal mass

Discussion

Coagulopathy is a well known complication of *Hypnale* envenomation, occurring in 20% of cases (4). First authenticated case of life threatening haemostatic dysfunction and acute renal failure following hump-nosed viper bite in Sri Lanka was

reported in 1994 (1). Our patient had a life threatening episode of retroperitoneal bleeding complicated by proximal deep vein thrombosis, presenting after five weeks following the bite. This was unusual as most cases present within the first 1-3 weeks following the bite.

The patient's coagulation profile became normal after one week of discharge. Hence the cause of the bleeding tendency at presentation could be attributable to "hypnale coagulopathy". It was supported by delayed PT and APTT at presentation. The occurrence of bleeding tendency and thrombosis, simultaneously, in our patient needs an explanation. Compression of the external iliac veins due to pelvic haematoma leading to stagnation and thrombosis in deep veins is a plausible explanation.

Although hump-nosed viper is regarded as a "non lethal, moderately venomous snake", the occurrence of potentially fatal complications of this nature should be considered in their management. Follow up of these patients should be arranged as late presentation of complications, as seen in our patient, is possible.

In summery we highlight the possibility of a late presentation of coagulopathy related to hump-nosed viper bite and the need of careful monitoring of coagulation profile in them. Furthermore, follow-up of patients admitted after hump-nosed viper bite should be more thorough and should extend at least up to two months.

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