



ACUTE PANCREATITIS FOLLOWING VIPER BITE: A CASE REPORT

Internal Medicine

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ABSTRACT

Background- Snakebite is a great cause of concern to public health in tropical regions of the world. Snake bites are common in India, including Viper bite manifesting with marked localised and variable systemic symptoms. It can cause severe coagulopathy, pain, compartment syndrome edema, renal failure, multi organ dysfunction, acute respiratory distress syndrome and on rare occasion, life-threatening haemorrhage. We report a case of acute pancreatitis secondary to a viper bite reporting almost 2 weeks later to the emergency. With timely diagnosing and managing the patient as the standard protocol, patient was discharged in satisfactory condition. **Conclusion:** Apart from being managed in acute phase of snake patient, the patient should be kept in close follow up and counselled regarding the long-term complications ranging from musculoskeletal deformity of the affected limb to systemic complications like Pancreatitis as the following case.

KEYWORDS

Viper, Pancreatitis, Snake Bite

INTRODUCTION:

Snakebite envenoming is a potentially life-threatening disease caused by toxins in the bite of a venomous snake. High-risk groups include rural agricultural workers, herders, fishermen, hunters, working children, people living in poorly constructed houses and those with limited access to education and healthcare. Incidence of snake bite in India is about 1.5 lakh per year, of which viper bite is being common (1,2,7). A nationally representative study noted 45,900 annual snake bite deaths annually (1). Viper envenomation causes significant local envenoming symptoms; pain, swelling, blister formation, and severe tissue necrosis as well as acute systemic envenoming causing potentially fatal systemic manifestations chiefly related to coagulation derangement (2,15). Systemic manifestations include acute renal failure, sepsis and systemic haemorrhagic manifestations, ARDS, Respiratory failure (8). Envenoming can have variable effect including rare complication as ischaemic stroke, pancreatitis. We report such a case of acute pancreatitis in person with viper snake bite with no other known aetiology of pancreatitis.

Case History:

A 30 years old male, non-alcoholic, no comorbidities, with history of snake bite (viper) on medial side of left ankle 7 days ago presented to AIIMS Emergency with complaints of burning pain and swelling in left lower limb for 7 days, vomiting episodes for 1 day. Clinical examination showed 2 fang marks on medial aspect of left ankle, swelling of left lower limb. USG doppler of left lower limb suggested cellulitis. Serological markers suggested pancytopenia, features of acute kidney injury and deranged LFT. Patient was given ICU care in view of MODS presentation, managed conservatively and discharged on 4th day of admission.

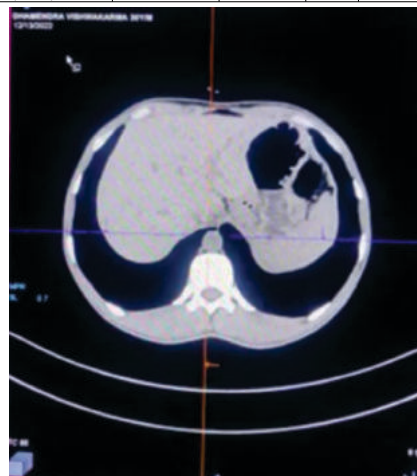
Patient again presented to the emergency 17 days after discharge with complaints of severe epigastric pain, boring in nature, radiating to back with aggravation after meal and vomiting episodes.

Positive clinical findings included pallor and tenderness over epigastric region. Blood investigations revealed elevated serum amylase and lipase levels. USG abdomen was not suggestive of gall stones. Patient was given symptomatic treatment including fluids and analgesics. CECT abdomen suggested findings of bulky oedematous pancreas with CT severity score of 2 (mild pancreatitis). With conservative management patient improved symptomatically and discharged.

Investigation Chart

INVESTIGATIONS	17/11/22	18/11/22	25/11/22	8/12/22
Hb (gm/dl)	4.5	5.7	6	9
TLC /cumm	1980	3940	3500	3850

DLC %	70/23/4.5	64/23/9.3	19.6/52/4.4/20.7
Platelets (lacs/microlitre)	0.09	0.8	2.25 2.93
S. urea (mg/dl)	205.63	157.24	53 41
Creatinine (mg/dl)	5.39	3.3	1.61 1.42
Na (mmol/L)	124.1		133 130
K (mmol/L)	3.38		4.03 4.24
Cl (mmol/L)	87.09		100
Pt/INR	13.1/1.16		
Fibrinogen	5.69		
ALT/AST (U/L)	283/110		239/510
T.BIL/D.BIL (mg/dl)	1.02/0.34		0.43/0.11
Total protein (g/dl)	4.9		6.61
LDH	645		
S. amylase (U/L)			281
S. lipase (U/L)			539.33



Cect Abdomen:

Pancreas appearing mild bulky (Head 3.4cm,tail 2.8cm) with smooth margins. However, pancreas shows normal contrast enhancement. There is no obvious intra/peripancreatic collection noted. No obvious peripancreatic fat stranding noted. Anterior margins of body show minimally fuzzy border. No obvious focal pathology is seen. No obvious parenchymal calcification is noted. Pancreatic duct appears normal.

DISCUSSION:

Viper bites usually cause marked localised symptoms (4,13). The early symptoms include immediate pain, localised swelling and discolouration within minutes at the site of snake bite, as was seen in our patient (2,6,13). There may also be other symptoms like dizziness, faintness, sweating, anxiety, confusion, nausea, vomiting and diarrhoea. It can result in consequences as DIC (defibrination) like syndrome, cardiac, renal, pulmonary and neurological effects, ischaemic CVA (9,13).

Acute pancreatitis is a rare complication of viper bite. Only few cases have been reported regarding viper bite induced pancreatitis (3), however other venomous snakes such as cobra have been known to cause pancreatitis (4,5). The delay in onset of symptoms following envenomation suggests time taken for venom to reach and impact upon pancreas. Pancreatitis associated with snakebite is an uncommon complication, though enzymatic components of both snake venom phospholipase A2 (PLA2) and human pancreatic PLA2 are used for cell destruction in vitro (10,11). The explanation for pancreatitis secondary to snake bite, it is induced by enzymatic destruction of tissue, in particular by activity of venom PLA2. (14)

The diagnosis of acute pancreatitis requires the presence of two of the following three criteria: acute onset of persistent, severe, epigastric pain often radiating to the back, elevation in serum lipase or amylase to three times or greater than the upper limit of normal, and characteristic findings of acute pancreatitis on imaging (contrast-enhanced computed tomography [CT], magnetic resonance imaging [MRI], or transabdominal ultrasonography (12).

Our patient was provided standard supportive care and symptoms resolved without any undue hospitalisation.

CONCLUSION:

This case report adds to limited data on viper bite induced pancreatitis. Patients having history of recent snake bite should be counselled and closely observed for rare complications like Pancreatitis. (3) Pancreatitis secondary to viper bite appear to follow natural history typical of most acute pancreatitis secondary to usual causes and can be managed conservatively.

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