

Traditional first aid in a case of snake bite: more harm than good

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DESCRIPTION

A 22-year-old man bitten by a snake reported to this centre 24 h after traditional first aid at the village. At presentation, he had no features of systemic envenomation. Local examination of the right lower limb revealed a clear delineation mark secondary to tight bands (tourniquet) (thin black arrows in figures 1 and 2), limb covered with cow dung and use of snake stones. On washing the limb, fang marks (broad red arrow in figure 1) with multiple local incisions/pricks/punctures below the knee in the bitten limb and blisters (figures 2–5) were noticed. Based on the history, he was administered bolus dose of Indian polyvalent antivenin before removing the tourniquet.

The patient developed features of septicaemia, muscle spasms, dysphagia after 7 days of the bite



Figure 1 Profile view of local signs in a case of snake bite after traditional first aid. Broad red arrow—fang marks. Thin black arrows—delineation marks at the site of the tourniquet.



Figure 2 Frontal view of local signs in a case of snake bite after traditional first aid. Thin black arrows—delineation marks at the site of the tourniquet.



Figure 3 Multiple blisters noticed on the affected limb.



Figure 4 Local oedema of the affected limb.



Figure 5 Multiple pricks/punctures and incision marks of the affected limb.

and later respiratory weakness requiring a prolonged ventilation. Gram stain of blister fluid suggested *Clostridium* sps. He was managed with antivenin, human antitetanus serum and intravenous diazepam/magnesium/metronidazole.

Similar local signs can be seen in viperine bites.¹ The sequence of clinical events though simulates



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delayed envenomation of cobra bite; important differences are bleeding from the puncture wounds, muscle spasms and no evidence of flaccidity.^{1 2} Tourniquet, whenever applied on the spot, should be released only in hospital settings and after starting antivenin.² Features in favour of tetanus (mortality of 10–60%) include incubation period, symptomatology and isolation of

organism in the background of incisions and cow dung application.³ This patient had a high possibility of developing gas gangrene as well.

This case highlights detrimental effect of more popular traditional practices.

Contributors YU was involved in managing the case. YS was actively involved in following up the case and preparing the manuscript.

Competing interests None.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

Learning points

- ▶ Improper first aid costs more lives than envenomation in snake bites.
- ▶ Rural education/awareness campaigns to discourage arterial tourniquet, local incisions/pricks and punctures, suction of the venom and application of cow dung on the site of snake bite is very important.
- ▶ Immobilisation of limb and immediate/early transfer to medical facilities should be encouraged.

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