

SNAKE BITE GANGRENE OF THE LEG

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SUMMARY

A 14 year old male had gangrene of the leg following snake bite, leaving only 4 cms. skin beyond the level of knee and a thin strip of skin reaching the lower part of leg posteriorly, with an alive muscle deep to it.

A below knee amputation was achieved by utilising the thin strip and the muscle to go round the bone stump, supplemented with limited free skin graft. This avoided an above knee amputation.

Below knee amputation is always advantageous as compared with an above knee. Myocutaneous flap have a distinct advantage in amputation surgery. A case where no useful skin was available below the knee except a thin strip of skin overlying the gastrocnemius is being presented.

Material and Techniques

A 14 year old male was referred with a history of snake bite one week earlier. A tourniquet above the knee was applied by the people who rendered first aid to him. Details about the duration or nature of the tourniquet were not available. The patient was toxic and pouring pus. The ankle was dangling loose by necrotic tendons. There was only a 4 cms. fringe of skin below the knee in the anterior part and on the sides. A strip of skin varying from 3-4 cms. in width extended down for about 19 cms. (Fig. 1-2). In view of this, conventional methods could permit only an above knee amputation.

The dangling ankle was snipped off and drainage improved. The pus grew staphylococci and pyogenes sensitive only to gentamycin. Skiagram showed a mottled appearance in tissue planes. Patient was treated with metronidazole and appropriate antibiotics along with local care of wound. It took nearly

one month to control the infection.

On 16-7-1983 the surviving skin with underlying muscle was raised. Tibia was divided 15 cms. below the level of the knee. The long myocutaneous flap just sufficed to cover the bone stump and the raw area in front completely. There was a raw area of about 120 cms.² laterally and 156 cms.² medially. A delayed primary skin graft with exposure technique was carried out. Some of the grafts were lost and were replaced in another session two weeks later.

The patient came for review 1 year later. The stump was sound and the grafted area had reduced in size. The prosthetist found the stump satisfactory. There was full range of movement at the knee (Fig. 3 & 4).

Discussion and conclusion

The identity of the snake or the duration of the tourniquet is not clear. This could be a case of viper bite or even a result of wrongly used tourniquet (Parkash, 1984). Preserving the knee joint was important in this case, particularly so, since he was only 14 years old. Use of a gastrocnemius based long narrow myocutaneous flap proved satisfactory, (Parkash, Palepu & Sharma, 1983) in spite of extensive loss of rest of the leg, leaving only a 4 cms. fringe of skin in front.

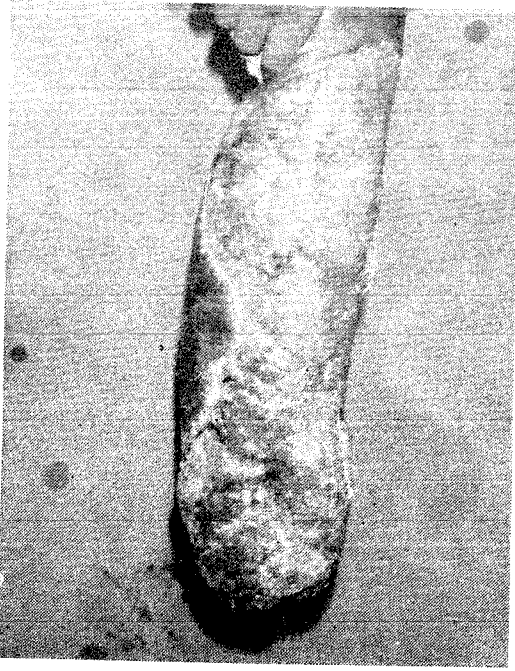


Fig. 1. Medial view. Note only a small fringe of skin below the knee.

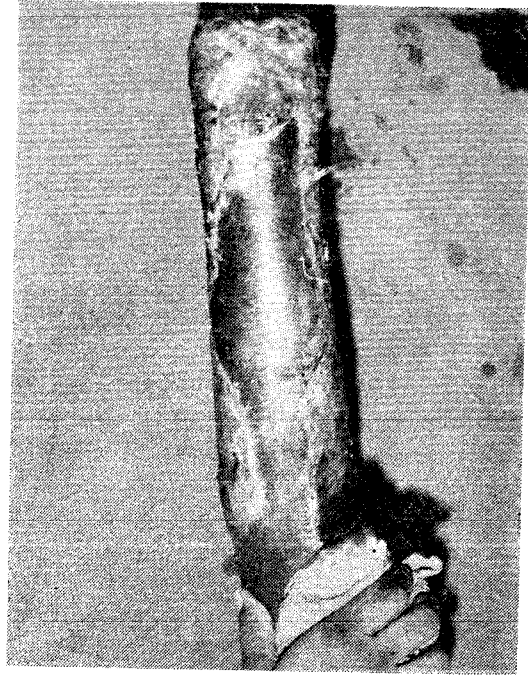


Fig. 2. Posterior aspect showing narrow surviving skin.

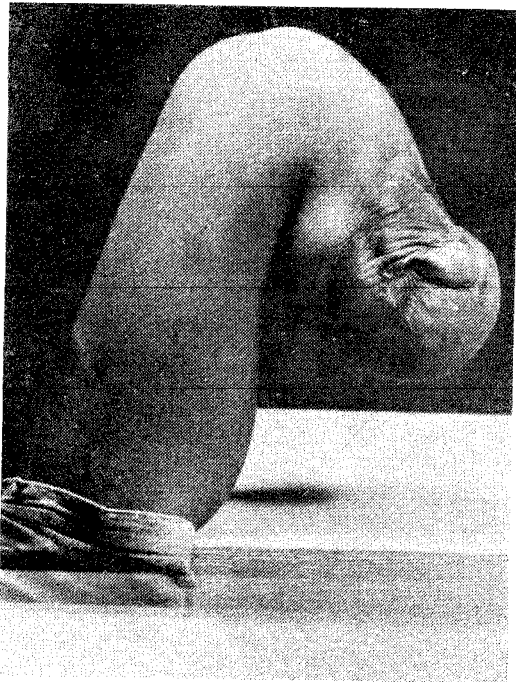


Fig. 3. Stump medial aspect. Note sound skin on vital part of stump; knee fully flexed.

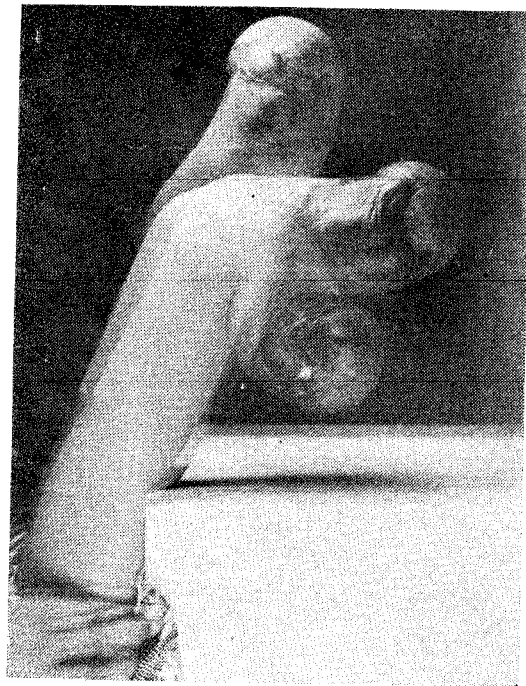


Fig. 4. Note full range of movement.

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