

The Lucknow splint

Sir,

High-velocity trauma of the lower limb is an increasing phenomenon these days, leading to complex wounds which mandate replacement of the lost tissues with flaps. Most of these wounds afflict the lower third of the leg and the foot. The postoperative care and splintage of these limbs is a difficult job and often the success or failure of the flap will depend on the proper postoperative splintage and positioning of the flapped limb.

An ideal splint should immobilise and elevate the limb without being constricting or compressive. It also should be able to allow for frequent flap inspections and be amenable to convenient dressing changes besides protecting the limb from sudden posture changes and accidental falling down. Conventionally, postoperative limb splinting has been achieved by a plaster of paris



Figure 1: Photograph showing the flap inset into the heel area

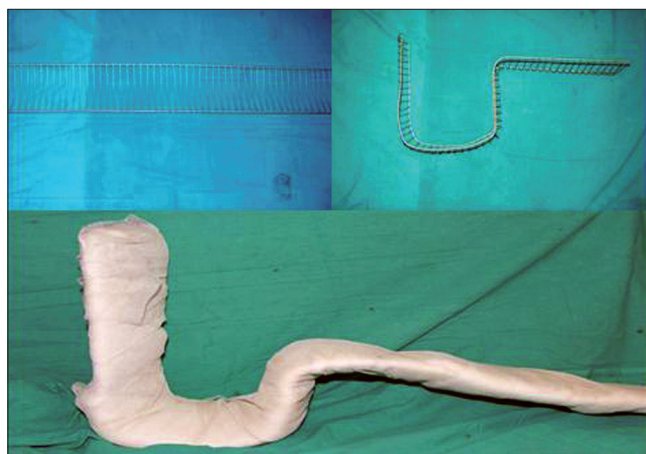


Figure 2: Composite figure showing construction of the Lucknow splint from a Kramer wire splint. After bending the Kramer wire splint in L shape, a U is incorporated in the L where the flap will lie. The whole construct is then padded with a Gamgee roll



Figure 3: The operated limb has been splinted in the Lucknow splint. See how the flapped area lies in the saddle-shaped U. The dressing can be slit and the flap inspected easily without removing the splint

slab, a Bohler Brown splint^[1] or even a Thomas splint.^[2] A search of the relevant literature shows that others have also been faced with the same dilemma, and hence there are reports of some innovative splint designs like the Modified Pillow splint.^[3]

We, at the Department of Plastic Surgery, Vivekananda Polyclinic and Institute of Medical Sciences, have a busy trauma unit, and hence are often called upon to manage crush injuries of the lower limb. Most of these are managed by free flap cover of the presenting defect. After much disappointment by the conventional methods of limb splintage and elevation, we have devised an innovative U-shaped Lucknow Limb splint for splinting and elevating the operated limb. The splint is easily fashioned in the OR itself from a piece of padded Kramer wire Splint, with the U being incorporated at the place where the flap has been inset to prevent compression of the flap and to facilitate easy flap monitoring. The limb in the Lucknow splint can be easily elevated by a bandage sling slipped in through the slits of the Kramer wire splint. The dressing in the U-shaped area of the splint is slit to allow for hourly inspection and daily postoperative dressing change [Figures 1–3].

This splint has, over a period of time, stood us in good stead and we hope that it will be adapted by other units facing the same difficulties, with good results.

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