

Comments: A useful modification of the plaster backslab to off-load pressure from reconstructions of the heel and elbow

Sir,

We have read with interest the article 'The Lucknow splint', submitted by Dr D N. Upadhyaya, Dr V Khanna, Dr A Pandey and Dr A Kohli. They have used a Kramer wire splint for making the off-loading slab after flaps to the heel. We have been fabricating a splint based on similar idea, but using an easily available saline bottle. We offer this technique to plastic surgeons, in whose units a Kramer wire splint may not be easily available.

We use the intravenous 500 cc saline plastic bottles commonly available throughout India to construct the splint to relieve the pressure at the heel or the elbow, which also allows us latitude of choice of joint position. Once the wound has been dressed, the bottle, still in its plastic wrapper, is placed beneath the critical area and a plaster of Paris slab of appropriate thickness (10-12 layers for the upper limb/12 to 14 layers for the lower limb) is



Figure 1: Posterior slab setting over the intravenous saline bottle and plastic wrapper at the ankle



Figure 2: Once the plaster has set, at 7-8 minutes, the saline bottle is slid out of the plastic wrapper, then the wrapper itself is removed



Figure 3: The final appearance of the offloading slab

applied over the bottle [Figure 1]. While the plaster sets, care is taken that the bottle does not compress the critical area by holding the leg just off the table with one hand under the foot and one under the middle third of the leg. During this process, the required position of the joint is also determined. Once the plaster is set, the saline bottle is slid out of its wrapper [Figure 2]. For the bottle to act as a mould effectively, it is important that the plaster is completely hard before removing the bottle. If the skin is not intact at the level of the proximal edge of the curve, the plaster must be flattened or curved and adequate padding must be given to prevent excessive pressure on the tendo achilles Figure 3 shows the final appearance of the offloading slab. In addition to its capacity to stabilize the joint and relieve pressure, this technique also makes it easier to review the window in the dressing for flap inspection.

This innovation is simple and cheap. Although a bottle of saline only costs 25 Rupees, we do not empty the bottle for removal, and it is used subsequently. It also avoids the potential morbidity, the need for removal surgery, and cost when systems based on external fixators are used to offload reconstructions of these regions. If the the plaster slab becomes soaked with body fluids from reconstruction, it is easily replaced in the same way in the ward.

The principle is the same, but it uses a saline bottle, which is easily available. This has been our method of choice for immobilization of reconstructions of the heel and the elbow.

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