BRIEF REPORT

Sam splint for wrap and immobilization of snakebite

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Wrap and immobilization as a lymphatic retardant (pressure-immobilization) was described and promoted by S. K. Sutherland for the management of Australian elapid snakebite.^{1–4} Its use has been expanded to most elapid bites with theoretical concern expressed for viperid bites and bites by those elapids with substantial proteolytic activity.

The pressure component of the technique is readily achieved with numerous commercially available elasticized compression dressings such as Ace wrap (Medline Industries, Mundelein, IL) or Coban (3M, St Paul, MN). The immobilization portion is not always readily available. An IV board will serve the purpose, but as most bites occur on the lower extremities, a longer, thicker, often-unavailable leg board is required. An IV board is made of inexpensive materials, materials that deteriorate with sun, heat, and time. As most bites occur in the wilderness, one might think a stick would do, but it is difficult to find a straight stick of the right proportions, particularly in times of distress.

The Sam splint (The Seaberg Company, Inc, Newport, OR) is a light, foam-covered strip of aluminum. It is designed as an extremity splint for skeletal injury. It is

readily available in first-aid and wilderness medical kits. The 36-inch splint is probably the single most versatile of the Sam splints. The figures that follow demonstrate its potential for use in pressure-immobilization. Absent field experience, it appears to be an ideal material.

Figure 1 demonstrates the use of a single Sam splint in the wrap and immobilization of a lower extremity. Figure 2 demonstrates the use of 2 Sam splints in the wrap and immobilization of a lower extremity.

References

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3. Sutherland SK, Coulter AR, Harris RD, Lovering KE, Roberts ID. A study of the major Australian snake venoms in the monkey. *Pathology*. 1981;13:13–27.
4. Sutherland SK. First aid for bites and stings. In: *Australian Animal Toxins*. Melbourne, Australia: University of Melbourne; 1983:22–25.

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Figure 1. Demonstrates the use of a single Sam splint in wrap and immobilization of a lower extremity. **A**, Left lower extremity. The 2 black marks on the dorsum of the foot indicate the fang marks and the site of envenomation. **B**, The lower extremity is wrapped to above the knee with a compression bandage. **C**, Using a single Sam splint, the splint is placed behind the leg. The foot is placed in a neutral position. The knee is placed in a comfortable position. **D**, A second wrap is applied external to the splint holding the splint firmly in place. **E**, Wrap and immobilization are complete.

Figure 2. An alternate and perhaps more stable immobilization is achieved using 2 Sam splints. **A**, The first Sam splint is placed over the wrap on the medial side of the leg. It extends above the knee and wraps around the dorsum of the foot. **B**, A second Sam splint is applied on the lateral aspect and is also wrapped around the dorsum and up the medial aspect. **C**, An additional wrap is applied external to this, holding it in position and completing the wrap and immobilization.