A Novel Technique for Achieving Asepsis and Hemostasis Using Hand Gloves During Surgery on Toes

Problem Faced

Hemostasis with asepsis is required for a bloodless procedure on the toes. For hemostasis, the donning (rolling) of finger gloves around toes is a good option, but it exerts a variable pressure. Therefore, the donning, at times, may not be effective in controlling arterial hemostasis. [1] In addition to this, there lies a problem of an appropriate gloves size for the effectiveness of the rolling method. Tying of gloves, for a procedure on the finger is a fast and simple option, but aseptic draping of foot and adjacent toes is not well addressed during the procedure. [2,3]

Solution Proposed

In general, hand gloves do not fit well on the foot. To solve this problem, a free-size hand glove is used (for toe hemostasis and aseptic draping of the foot). First of all, the finger glove is cut with scissors sparing about 1 cm to avoid a gap between the



Figure 1: (a) The finger of the hand glove is cut, and the glove is put on for aseptic draping of the foot. (b) The excised finger of the glove is tied around the toe for proper hemostasis before surgery

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glove and the toe. Selection of the finger portion to be cut is based upon the size of the toe to be operated Following this, the glove is put on the foot [Figure 1a]. The excised part of the glove is tied with moderate pressure around the base of the toe on the spared part of the finger glove to make the site more aseptic and hemostatic [Figure 1b]. In case of the cut finger glove being short, a small piece of gauze can be used [Figure 2a and b]. The effectiveness of hemostasis is judged by color and swelling of the toe within 1 to 2 min. An added advantage of this technique is that there is no need to drape the foot with a sterilized cloth during the procedure. Thus, the use of hand gloves is a simple and aseptic technique to perform bloodless surgery on the toe. It would be better if foot gloves could be designed, manufactured, and made available in the market for aseptic and hemostatic measures; as it is an area that is frequently operated upon. As an alternative to latex foot gloves, linen gloves can be designed, especially for the great toe.



Figure 2: (a and b) Great toe aseptically draped and hemostasised with hand gloves and gauze piece

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