A novel stitch for closure of wounds having dead space to eliminate the risk of hematoma and seroma formation

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SURGICAL CHALLENGE

To close wounds having dead space, dermal stitches are used for phasing out the dead space, as well as for redistributing wound tension and apposing the wound edges. However, they do not eliminate the formation of dead spaces completely, especially if the excision extends to the deep fat or fascia. Hematoma and seroma formation are possible sequelae of dead space formation. Placing deeper stitches such as fascial sutures can resolve this issue, but it is time-consuming. Postoperative fluid collection is the result of events resulting in disturbed soft-tissue healing. A negative correlation between seroma formation, alteration of normal wound healing, and wound infection is well documented. Increased skin flap necrosis resulting from tension on the overlying skin flaps aggravates the outcomes of wounds complicated with hematomas and seromas.[1,2]

SOLUTION

In contrast to the usual buried stitch that is started by entering the deep aspect of the wound in the subcutaneous tissue, this stitch is placed by entering the mid dermis of the wound edge as the initial step. The needle is then directed down through the reticular dermis, exiting through the deep aspect of the wound edge. In the next step, the needle is passed through the bed of the wound. The last step is done as the mirror image of the first step (Fig 1). This novel stitch eliminates the dead space in the wound much more effectively than the ordinary buried stitch does.

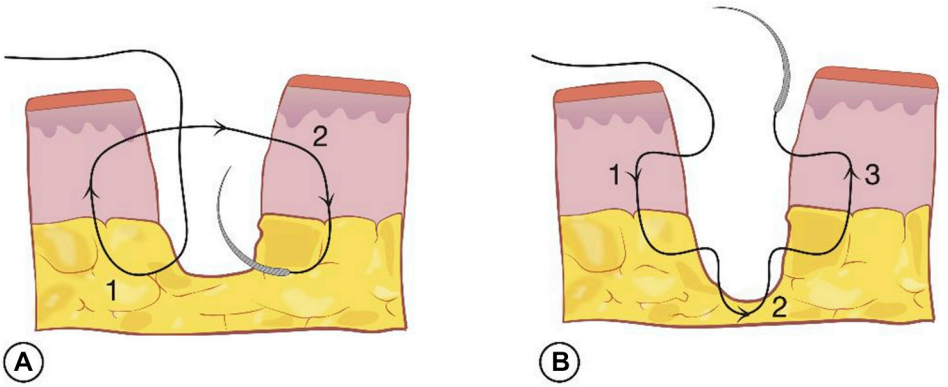

Fig 1. **A**, The usual subcutaneous stitch. **B**, Step-by-step guide to placement of the suggested stitch, which eliminates dead space formation.

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