

The Pinch Stitch: A Pearl for Suturing Wounds Under Tension

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INTRODUCTION

Closing defects under tension in areas such as the scalp and back may be challenging during dermatologic surgery. Different techniques have been advocated to ease the placement of the first deep suture under tension, including the slip-knot stitch, pulley stitch, horizontal mattress suture, pulley set-back dermal suture, and tandem pulley stitch.^{1,2}

The authors have tried different techniques to reduce wound tension and have found the Pinch Stitch to be an easy and relatively non-challenging method to teach junior dermatology residents who struggle with closing wounds under tension. Often, when closing wounds under tension, not only is it very difficult to approximate the wound edges, it is difficult to keep them approximated after the first throw of the suture. It is common practice for the surgeon's assistant to push the wound edges together with their hands. This technique however is very cumbersome and not only uncomfortable to the patient but also theoretically a higher risk for needle pokes with more hands so close to the surgical field. As previously described in plastic surgery and dermatologic literature, the Pinch Stitch technique offers a novel solution.^{3,4} In this technique, after the surgeon completes the first throw of the deep suture, the surgeon lifts each end of the suture perpendicular to the surgical defect, where the surgical assistant is able to pinch the base of these sutures, holding the suture in place with two fingers while not losing any tension. The surgeon then completes a second throw (now securing the knot) as the assistant releases the pinch. This technique keeps the wound approximated in a minimally invasive manner (using two fingers as opposed to two hands) without losing any tension between the first and second throws. The following steps in placing a Pinch Stitch have been demonstrated in the video (See video online for an example of

this technique): Step 1) Perform extensive undermining around the defect. Step 2) Throw the first knot and tighten it by pulling each end of the suture in opposite directions parallel to the length of the closure line. Step 3) Once completely tightened and the wound approximated, lift both ends of the suture (still under tension) perpendicular to the wound. Step 4) The surgical assistant pinches the base of the suture. Step 5) The surgeon places the second throw and the assistant does not release the pinch before the knot touches the assistant's fingers. Step 6) The knot is secured as the assistant removes their fingers.

In our experience, this is a simple, safe, non-cumbersome method to help close a wound under tension and a wonderful teaching pearl for a dermatology resident.

DISCLOSURES

The authors have no relevant conflicts to declare.

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