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Subject:
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To:



ORIGINAL RESEARCH

Background: Topical skin adhesives (TSA) are commonly used to close small, uncomplicated lacerations; however, the use of TSA's on digit lacerations has largely been avoided. Despite evidence that shows suturing finger lacerations increases treatment time, infection rate, cost, patient pain and inconvenience; most practitioners continue to close these lacerations with sutures; primarily citing concerns for an increased risk of wound dehiscence when a topical skin adhesive is used.

Objective: To evaluate the effectiveness of using topical laceration closure methods (Dermabond +/- steri-strips) to treat lacerations on the digits of the hand.

Methods: Finger lacerations were closed with topical laceration closure methods (T-RING and Dermabond, with or without a wound closure strip) or sutures at the provider's discretion. Wound characteristics (size, shape, location), and treatment time were recorded. Patients were contacted in follow up to assess effectiveness of wound closure, how long the topical skin adhesive remained intact on the digit, and if there was any additional treatment required for infection, wound dehiscence or recurrent bleeding.

Results: Topical laceration closure methods were used to treat 88 finger wounds (74 lacerations, 14 fingertip avulsions); 32 lacerations were sutured. Wound characteristics were similar in each of the laceration groups. 80 patients treated with topical laceration closure methods were available for follow up (68 laceration, 12 fingertip avulsions), 29 were available in the sutured group. In the laceration group, Dermabond remained intact on the skin for an average of 9.6 days; Dermabond plus a wound closure strip averaged 10.1 days. 2 lacerations treated with topical methods dehisced (2.9%). When used on fingertip avulsions, Dermabond lasted an average of 10.9 days. There was a lower complication rate (wound dehiscence, infection, recurrent bleeding) for lacerations in the topical laceration closure group (5.9%) than the sutured group (10.3%). Treatment time was significantly less when wounds were closed with topical laceration closure methods (average 5.49 minutes) versus suturing (17.2 minutes), and the need for a follow up visit was much lower (11.4% versus 90.6%).

Conclusion: Finger lacerations can be treated effectively using topical skin adhesives. Compared to sutures there is a low rate of wound dehiscence; a reduction in treatment time, complication rate and need for follow up visit.

