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ABSTRACT

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Abstract

Title: **Evaluation of a Novel Skin Closure Device at the Time of Cesarean Section: A Randomized Pilot Study**

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OBJECTIVE: To compare the DermaClip non-invasive skin closure device to subcuticular skin closure at the time of cesarean delivery.

STUDY DESIGN: This was a prospective randomized pilot study of 32 patients undergoing cesarean section. All patients signed an institutional review board–approved informed consent to participate in the study. The primary outcome was operative time for the skin closure.

RESULTS: A total of 32 patients met the inclusion and exclusion criteria and were randomized. There was no difference in age, race, or body mass index (BMI). The median age in both groups was 34.5 years, and the mean BMIs were 33.2 kg/m2 and 32.7 kg/m2 in the DermaClip and subcuticular groups, respectively (p= 0.776). As to the primary outcome, skin closure time, DermaClip allowed for a significantly faster closure time at 3 minutes, 15 seconds versus 6 minutes, 57 sec- onds (p<0.0001).

CONCLUSION: The DermaClip closure time was significantly faster than the subcuticular suture closure by 3 minutes and 37 seconds. Future studies that are adequately powered to compare wound separation, infections, and dehiscence are needed to fully evaluate this novel closure device and its potential role in cesarean delivery wound closure.

Keywords: abdominal wound closure techniques; cesarean delivery; cesarean section; Derma-Clip; postoperative complications; prospective studies; skin closure; surgical staples; surgical techniques; surgical wound dehiscence; surgical wound infection; suture techniques; wound closure