



## Early Experience With Barbed Sutures for Abdominal Closure in Deep Inferior Epigastric Perforator Flap Breast Reconstruction

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**Objective:** Barbed sutures have recently been introduced for closure of surgical incisions. These self-anchoring sutures incorporate evenly spaced barbs in a circumferential distribution along their length, facilitating knotless wound closure and even distribution of tension along the suture line. In this study, we evaluated postoperative complications associated with the use of unidirectional barbed sutures compared with standard sutures for closure of the abdominal incision in deep inferior epigastric perforator flap breast reconstruction. **Methods:** A consecutive series of 142 patients undergoing deep inferior epigastric perforator flap breast reconstruction were identified at a single institution. The abdominal closure in the first 71 patients was performed using standard suture materials. In the subsequent 71 patients, closure was performed using unidirectional barbed sutures. Patient demographics, complications, procedure time, and costs were compared between standard and barbed suture groups. **Results:** Demographic characteristics and comorbidity profiles were similar between the 2 groups. Overall, there was a significantly higher incidence of complications in the standard suture group (17 vs 7 complications,  $P = .0423$ ). Similar rates of wound infection ( $P = .4412$ ), wound dehiscence ( $P = .4934$ ), and seroma ( $P = .1157$ ) were recorded in both groups. Barbed sutures were \$ 15.58 more expensive than standard sutures. No significant difference in total length of operation was observed. **Conclusion:** In this study, the utility of unidirectional barbed sutures in deep inferior epigastric perforator flap breast reconstruction has been demonstrated. Barbed sutures may be useful in a broad range of plastic surgery procedures, not only because of their convenience but also based on favorable clinical outcomes.

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While the deep inferior epigastric perforator (DIEP) flap is now a well-established standard in breast reconstruction, refinements in technique continue to be reported.<sup>1-5</sup>

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