

Double Venous System Drainage in Deep Inferior Epigastric Perforator Flap Breast Reconstruction
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Abstract Text:

Background: Breast reconstruction with the deep inferior epigastric perforator (DIEP) flap has many advantages. The main drawback is the technical difficulty and risk of failure. Many flap failures are the result of venous insufficiency. The author explored the routine use of double venous system anastomosis in DIEP flap breast reconstruction.

Methods: In all consecutive DIEP flaps performed by the author from June 1, 2008, to July 1, 2012, in which it was technically feasible, a superficial vein was dissected and anastomosed to either an internal mammary perforating vein or a second vena comitans. Patient charts were reviewed for flap failure or return to the operating room for exploration of suspected vascular insufficiency. A standard chi-square test and Yates corrected chi-square test were used for analysis.

Results: Three hundred fifty-two DIEP flaps were performed on 192 patients in the study period. In 311 of 352 flaps (88.4 percent), double venous system anastomosis was possible. There were no flap failures in either group. In the double venous system group, there was one (0.3 percent) return to the operating room for venous congestion. In the single venous system group, there were two (4.9 percent). Chi-square analysis showed statistically significant reduction in operative explorations in the double venous system group (value of 8.9; $p = 0.0029$). A Yates correction, applied because of the low number of reoperations in both groups, also showed a statistically significant reduction (value of 4.3; $p = 0.038$).

Conclusion: Double venous system anastomosis statistically reduced operative take-backs in this study.