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Tumescent mastectomy technique in autologous breast reconstruction

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ABSTRACT

Background: Use of the tumescent mastectomy technique has been reported to facilitate development of a hydrodissection plane, reduce blood loss, and provide adjunct analgesia. Previous studies suggest that tumescent dissection may contribute to adverse outcomes after immediate implant reconstruction; however, its effect on autologous microsurgical reconstruction has not been established.

Methods: A retrospective review was conducted of all immediate microsurgical breast reconstruction procedures at a single academic center between January 2004 and December 2013. Records were queried for age, body mass index, mastectomy weight, diabetes, hypertension, smoking, preoperative radiation, reconstruction flap type, and autologous flap weight. Outcomes of interest were mastectomy skin necrosis, complete and partial flap loss, return to the operating room, breast hematoma, seroma, and infection.

Results: There were 730 immediate autologous breast reconstructions performed during the study period; 46% with the tumescent dissection technique. Groups were similar with respect to baseline patient and procedural characteristics. Univariate analysis revealed no significant difference in the incidence of mastectomy skin necrosis, complete or partial flap loss, return to the operating room, operative time, estimated blood loss, recurrence, breast hematoma, seroma, or infection in patients undergoing tumescent mastectomy. Multivariate analysis also demonstrated no significant association between the use of tumescent technique and postoperative breast mastectomy skin necrosis ($P = 0.980$), hematoma ($P = 0.759$), or seroma ($P = 0.340$).

Conclusions: Use of the tumescent dissection technique during mastectomy is not significantly associated with adverse outcomes after microsurgical breast reconstruction. Despite concern for its impact on implant reconstruction, our findings suggest that this method can be used safely preceding autologous procedures.

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