

Available online at www.sciencedirect.com

ScienceDirect

journal homepage: www.JournalofSurgicalResearch.com

Association for Academic Surgery

Tumescent mastectomy technique in autologous breast reconstruction



Christina R. Vargas, MD,^a Pieter G.L. Koolen, MD,^b Olivia A. Ho, MD,^b
Joseph A. Ricci, MD,^b Adam M. Tobias, MD,^{a,b} Samuel J. Lin, MD,^{a,b}
and Bernard T. Lee, MD, MBA, MPH^{a,b,*}

^a Department of Surgery, Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, Massachusetts

^b Division of Plastic and Reconstructive Surgery, Department of Surgery, Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, Massachusetts

ARTICLE INFO

Article history:

Received 2 January 2015

Received in revised form

7 March 2015

Accepted 19 March 2015

Available online 24 March 2015

Keywords:

Tumescent technique

Mastectomy

Breast cancer

Breast reconstruction

Microsurgery

Autologous reconstruction

Outcomes

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.

© 2015 Elsevier Inc. All rights reserved.

* Corresponding author. Division of Plastic and Reconstructive Surgery, Department of Surgery, Beth Israel Deaconess Medical Center, 110 Francis St., Suite 5A, Boston, MA 02215. Tel.: +1 617 632 7835; fax: +1 617 632 7840.

E-mail address: btlee@bidmc.harvard.edu (B.T. Lee).

0022-4804/\$ – see front matter © 2015 Elsevier Inc. All rights reserved.

<http://dx.doi.org/10.1016/j.jss.2015.03.050>