reconstruction were identified. Immediate reconstructions were performed prior to PMRT, and delayed reconstructions were performed after PMRT. Postoperative complications at one and two years after reconstruction were assessed. Patient reported outcomes were evaluated using the BREAST-Q questionnaire preoperatively, at one and two-years postoperatively. Univariate and mixed effects logistic regression analyses were performed to assess relationships among demographic, clinical variables, and outcomes of interest.

RESULTS: A total of 175 patients met our inclusion criteria. Immediate reconstructions were performed in 108 patients and delayed reconstructions in 67 patients. Overall complication rates were similar based on reconstructive timing (25.9% immediate and 26.9% delayed; p=0.54). Patients with delayed reconstruction report significantly lower preoperative (pre-reconstruction) scores (p<0.0001) for satisfaction with breast, psychosocial and sexual well-being than did patients with immediate reconstruction. At one and two years postoperatively, both groups of patients reported comparable levels of satisfaction with breast and in all other evaluated BREAST-Q domains.

CONCLUSIONS: Breast aesthetics and quality of life do not appear to be compromised by flap exposure to PMRT. Furthermore, immediate autologous breast reconstruction in the setting of PMRT appears to be as safe as delayed autologous breast reconstruction.

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Thin Patients are at Higher Risk for Venous Congestion During DIEP Reconstruction

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INTRODUCTION: Venous congestion occurs in 2–15% of deep inferior epigastric perforator (DIEP) flaps and often requires superficial inferior epigastric vein (SIEV) salvage.1,2 We previously showed thicker suprascarpal fat pads (>23 mm) are associated with increased SIEV caliber.1 We hypothesize that patients with thicker suprascarpal fat pads have a dominant superficial venous system and are more likely to suffer venous congestion.

METHODS: An IRB-approved retrospective study was performed at New York-Presbyterian Hospital/Weill Cornell. Subjects included female patients who underwent unilateral or bilateral DIEP flap reconstruction from 2011-2015. Radiographic measurements of suprascarpal fat pad thickness and SIEV diameter were collected per hemi-abdomen from preoperative abdominal CT angiogram (CTA) imaging. Clinical outcomes recorded included: intra-operative venous congestion and SIEV usage. Statistical analysis explored if suprascarpal fat pad thickness was associated with clinical outcomes.

RESULTS: 94 patients underwent 164 DIEP flaps. Mean suprascarpal fat pad thickness was 20.7mm ± 10.8 (4.9–65.4) and mean SIEV diameter was 2.8mm ± 0.7 (1.5–5.7). Five (3.0%) flaps exhibited venous congestion, with three (1.8%) requiring intra-operative SIEV salvage. All four cases of venous congestion in patients with pre-operative CTA occurred in flaps with suprascarpal fat pad thickness less than 18mm (p=0.041).

CONCLUSIONS: There is a significantly increased risk of venous congestion with thinner suprascarpal fat pads (<18mm), suggesting that venous congestion is not related to superficial draining system dominance or increased SIEV caliber. We recommend SIEV dissection with suprascarpal fat pad thickness <18mm.

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The Impact of Implementing a Standardized Postoperative Pathway on Underserved Patients Undergoing Microsurgical Breast Reconstruction

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**PURPOSE:** There is paucity of knowledge regarding the impact of variation in postoperative care for microsurgical breast reconstruction patients. Currently, both optimizing patient outcomes and decreasing the cost of healthcare are of prime concern. Caring for underserved populations presents greater challenges in this realm for many reasons. Our aim was to understand the impact of initiating a standardized postoperative pathway for underserved patients undergoing microsurgical reconstruction.

**METHODS:** A retrospective review of all patients who underwent microsurgical breast reconstruction at Montefiore Medical Center from January 2012-January 2015 was conducted. A standardized postoperative care pathway was implemented in January 2014. Patients were divided into two cohorts, those having microsurgical breast reconstruction after the pathway was implemented and those who had variable postoperative care prior to pathway. Primary dependent variables analyzed included postoperative complications and hospital length of stay. The Independent variables analyzed included demographic information, timing of reconstruction, flap type, sidedness of surgery, adjuvant therapy, and average operating room time. Characteristics and outcomes were compared using Fishers exact test and general linear models for continuous and categorical data, respectively.

**RESULTS:** A total of 78 patients undergoing 104 flaps were included for analysis. Twenty-six patients (33.3%) undergoing 34 flaps (32.7%) were in the control cohort (prior to implementation of the standardized pathway) and 52 (66.66%) patients undergoing 70 flaps (67.3%) were included in the standardized cohort. When comparing cohorts there was no difference between, age, medical comorbidities, smoking status, timing of reconstruction, or radiation/chemotherapy status. However, the average length of stay for patients having postoperative care with a standardized pathway was significantly shortened by 1.3 days when compared to the control group (4.69 ± 1.33 versus 6 ± 2.60 (p<0.05). There was additionally no difference in postoperative complications including arterial thrombosis, venous thrombosis, fat necrosis, mastectomy skin flap necrosis, and wound healing problems between the two cohorts.

**CONCLUSIONS:** Using a standardized postoperative pathway for the care of underserved patients undergoing microsurgical breast reconstruction yields a significant decrease in hospital length of stay without increasing postoperative complications.

The Use of Both Antegrade and Retrograde Internal Mammary Vessels in the Bipedicled (double-barrel) Deep Inferior Epigastric Perforator Flap for Unilateral Breast Reconstruction

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**BACKGROUND:** Autologous abdominal tissue transfer is a well-established method of breast reconstruction. The deep inferior epigastric perforator flap (DIEP) has the additional benefit that donor site morbidity is minimal as it spares the muscle and fascia. Conventional DIEP flap reconstruction may not provide adequate volume in cases where the patient is thin, has midline abdominal scars, and/or has a large volume of tissue to replace. One solution is to use a bipedicled DIEP flap, which can incorporate all of the available abdominal tissue.

Bipedicled DIEP flaps have been described in a number of different configurations. The literature appears to favor intra-flap anastomosis, with a minimal exposition of two recipient vessels. It has been demonstrated that both the