mainstay treatment options for extremity lymphedema. However, there are concerns regarding donor site morbidity following LNF harvest. Also, some observations have been made with regards of the effect of LNF on areas of the extremity away from the transferred flap. Herein, we describe the extended right gastroepiploic lymph node flap (RGE-LNF) via laparoscopic approach with a double level flap inset for patients with upper and lower limb lymphedema.

MATERIALS AND METHODS: Between 2012 and 2015, patients with grade II and III upper or lower extremity lymphedema were selected for LNF transfer. Preoperative and postoperative limb circumference and lymphoscintigraphy were obtained. All patients underwent laparoscopic harvest of the extended RGE-LNF. In all cases, a double inset was performed at a distal and mid-limb level of the affected limb by dissecting a single flap in two. In addition, etiology of lymphedema, OR time and complications were analyzed.

RESULTS: A total of 7 patients were analyzed. The etiology was due to mastectomy and axillary lymph node dissection for breast cancer (n=4) and after hysterectomy and radiotherapy for gynecological cancer (n=3). The survival rate of the flaps after microsurgical transfer was 100%. The average operating time for flap harvest was 37±4.7 minutes; The average time for flap preparation was 8.7±0.8 minutes. The average total operating time including harvest and insets was 245 minutes. The average follow-up period was 14 months. The mean circumference reduction rate of the lymphedematous limb during follow-up was 43.4±4.0% (range, 38.3% to 48.9%). Postoperative lymphoscintigraphy showed improvement of the lymph flow on the affected limb in all cases. No donor-site morbidity was encountered during the follow-up period.

CONCLUSION: The laparoscopic harvest of the extended RGE-LNF with a double level flap inset has been showing promising results. Due to the reduction of overall limb volume and symptomatic improvement, this approach may be a new potential treatment option for patients with extremity lymphedema. In addition, minimally invasive approach achieved reduction in donor site morbidity.

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Management of Primary and Secondary Lymphedema: Analysis of 400 Referrals to a Center

Reid A. Maclellan MD, MMSc; Arin K. Greene MD, MMSc

BACKGROUND: Lymphedema is the progressive swelling of tissue due to inadequate lymphatic function. Although lymphedema is a specific condition, patients with a large extremity are often labeled as having “lymphedema”, regardless of the underlying cause. The purpose of this study was to characterize referrals to a center to determine if lymphedema should be managed by specialists.

METHODS: Patients treated in our Lymphedema Program between 2009 and 2016 were reviewed. Diagnosis was determined based on history, physical examination, photographs, and imaging studies. Lymphedema type (primary, secondary), location of swelling, age, gender, previous management, accuracy of referral diagnosis and the geographic origin were documented.

RESULTS: Four hundred patients were referred with a diagnosis of “lymphedema”; 70% were female and 30% were children. Lymphedema was confirmed in 73% of the cohort: primary (56%) and secondary (44%). Twenty-seven percent of patients labeled with “lymphedema” had another condition. Before referral, only 4% of the cohort underwent lymphoscintigraphy (the gold standard diagnostic test for lymphedema), whereas 31% of patients with lymphedema received nondiagnostic tests for lymphedema. Eight percent
were given a diuretic which does not improve the condition. One-third of patients resided outside of our local referral area. The average time between onset of lymphedema and referral to our Lymphedema Program was 10 years (range, 1–62 years).

CONCLUSIONS: Patients presenting to a center with “lymphedema” often have another condition, and may be suboptimally managed prior to their referral. Patients with suspected lymphedema should be referred to specialists focused on this disease.

Applications of the Combined Transverse Upper Gracilis and Profunda Artery Perforator (TUGPAP) Flap

Pedro Ciudad, MD, PhD; Oscar J. Manrique, MD; Ketan M. Patel, MD; Mouchammed Agko, MD; Federico Lo Torto, MD; Hung-Chi Chen, MD, PhD

INTRODUCTION: The transverse upper gracilis (TUG) and the profunda artery perforator (PAP) flaps have been described for breast and perineum reconstruction. However, the abdomen is considered one of the primary donor sites to reconstruct these areas. However, when abdominal tissue is not available, other donor sites such as the thighs or buttocks should be considered. The aim of this study is to describe our experience using the combined TUGPAP flap, for breast and perineum reconstruction.

MATERIALS AND METHODS: Between January 2011 and June 2013, all patients who required breast or perineum reconstruction using the TUGPAP were recorded. All patients with previous abdominal surgery or lack of adequate donor abdominal site tissue were excluded. All TUG-PAP flaps were based on two pedicles: the ascending branch of the medial circumflex femoral artery (TUG) component, and the profunda artery perforator itself for the (PAP) component. Demographics, etiology of reconstruction, flap harvest time and complications were analyzed.

RESULTS: A total of 13 combined flaps were performed: 10 free flaps for immediate unilateral breast reconstruction and 3 pedicle flaps for perineum reconstruction. There were 3 men and 10 women. The mean size of the harvested skin paddle was 28.6 x 8 cm (range, 27 x 37 cm to 30 x 39 cm). The average flap harvest time was 102 minutes (range, 95 to 120 minutes). The average pedicle length for the TUG flap was 7 cm (range: 6–8 cm) and for the PAP flap was 9 cm (range: 8.5–10 cm). The flap survival rate was 100% and no partial flap loss was reported. No major complications were seen. However, there was one case of persistent donor site seroma, which was managed conservatively.

CONCLUSION: When abdominal tissue is not available, the TUGPAP flap is an alternative flap for medium to large breast reconstruction and extensive perineum defects. The good pedicle length, large skin paddle and the versatility of design, makes this flap a good alternative. In addition, the TUGPAP flap can be used for other kind of reconstructions when there are limited soft tissue donor sites and large tissue volume is required. However, appropriate patient selection is important in order to obtain good results.

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Risk Stratification of Major Complications After Outpatient Abdominoplasty or Panniculectomy

Marten N. Basta, MD; Charles C. Jehle, MD; John P. Fischer, MD, MPH; Paul Y. Liu, MD, PhD; Karl H. Breuing, MD

BACKGROUND: Ambulatory surgery centers offer the advantages of greater efficiency and overall patient experience. As more procedures are performed in the outpatient setting, reliably identifying patients at higher risk for major complications will be critical. Abdominoplasty and panniculectomy represent a large component of ambulatory plastic surgery procedures. While recent studies have identified risk factors for complications in the outpatient setting, there is no clinically actionable tool available for use currently. This study utilizes the ACS-NSQIP dataset to develop a