A 28-year Single Institutional Experience of Complete Reduction of Extremity Lymphedema Using Suction Assisted Lipectomy.

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Published in:
Plastic and Reconstructive Surgery - Global Open

DOI:
10.1097/01.GOX.0000935136.65667.c7

2023

Document Version:
Publisher's PDF, also known as Version of record

amputation interventions to ensure that they can successfully address the problems identified with LSS, including mobility and pain. Prior concerns with amputation, including phantom limb pain, can now be addressed with targeted muscle reinnervation and regenerative peripheral nerve interfaces. Moreover, these options may deserve more discussion in the setting of the primary surgery.

D137. EFFECT OF ELEVATED BODY MASS ON SURGICAL COMPLICATIONS IN PATIENTS UNDERGOING BODY CONTOURING AFTER MASSIVE WEIGHT LOSS

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PURPOSE: Massive weight loss can result in whole-body deformities that often are addressed with body contouring. However, even after weight loss, many patients have residual obesity. In this study, we aim to determine the effect of BMI on post-bariatric reconstructive surgery complications.

METHODS: Patients undergoing body contouring from 2002-2018 after massive weight loss (≥50 pounds) were retrospectively reviewed. Variables of interest include pre and post weight loss BMI, post-operative complications, and procedures per case.

RESULTS: In this cohort, 942 massive weight loss patients underwent 1,063 cases involving 1,814 procedures. 884 patients were female while 58 were male. Mean pre-weight loss BMI, or max BMI, was 51.9 ±9.8 while mean post weight loss BMI was 30.5 ±6.0. For all cases, an increased maximum BMI ($p=0.006$), but not current BMI, was associated with a higher rate of post-operative complications. Increased current BMI significantly amplified the risk of post-operative fat necrosis ($p<0.01$) while elevated maximum BMI increased the risk of seroma ($p<0.01$) and wound infection ($p<0.05$). In patients with multiple procedures (n=502), increased maximum and current BMI were associated with higher risk of seroma formation ($p<0.05$), but neither was associated with risk of seroma for single procedures cases (n=561).

CONCLUSION: Both pre and post weight loss BMIs play a role in complication rate and type, while only max BMI plays a role in multiple procedure cases. These findings indicate that pre and post weight loss BMI should be assessed, in addition to number of procedures, to optimize outcomes after body contouring.

D138. A 28-YEAR SINGLE INSTITUTIONAL EXPERIENCE OF COMPLETE REDUCTION OF EXTREMITY LYMPHEDEMA USING SUCTION ASSISTED LIPECTOMY

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PURPOSE: Absent lymph flow and chronic inflammation leads to excess subcutaneous adipose tissue deposition. Chronic non-pitting lymphedema does not respond to conservative treatment or microsurgical procedures because they do not target the adipose tissue. Removing the adipose tissue using suction assisted lipectomy (SAL) seems thus to be a logic treatment strategy.

METHODS: Arms: 190 women, mean±SEM age of 62±0.8 years, with a duration of arm swelling of 8.6±0.5 years underwent SAL. Age at breast cancer operation, interval between breast cancer operation and lymphedema start, and duration of lymphedema were 51±0.8 years, 2.8±0.4 years, and 8.6±0.5 years respectively. Legs: 128 patients with a mean age of 49±1.4 years and with a duration of leg swelling of 13±0.9 years underwent SAL. There were 64 primary (PL) and 64 secondary lymphedemas (SL) following cancer therapy. Age at cancer treatment and interval between cancer treatment and lymphedema start were 2.5±0.7 years and 42±1.7 years respectively. Age at onset of PL was 10 years.

RESULTS: Arms: Preoperative mean excess volume was 1404±52 ml. Postoperative reduction was 104±2.0% at 3 months and 117±2.1% at 1 year, and more than 100% during 28 years' follow-up. Legs: Preoperative excess volume was 3580±153 ml. Postoperative reduction was 82%±2.3% at 3 months and 101±2.3% at 1 year, and more than 100% during 23 years' follow-up.

CONCLUSION: SAL is effective for treatment of chronic lymphedema in patients who do not respond to conservative treatment. Removal of the hypertrophied adipose tissue leads to complete reduction. Constant use of compression garments maintains outcome.

D139. AESTHETIC AND FUNCTIONAL OUTCOMES FOLLOWING RECONSTRUCTION OF MOHS DEFECTS OF THE LIP: ANALYSIS OF 417 CASES

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PURPOSE: Vermilion lip defects secondary to Mohs micrographic surgery (MMS) present significant challenges to the reconstructive surgeon. The association of reconstructive method with aesthetic and functional outcomes of the lip remains uncertain.

METHODS: A retrospective review of patients who underwent MMS involving the vermilion lip between 2008-2022 was performed. Outcomes assessed included satisfactory appearance and function within 12 months, as reported at postoperative visits, complications, and revisions. Patients were stratified by the proportion of vermilion lip excised. Outcomes were analyzed using multivariable logistic regressions adjusting for patient-associated factors and with Chi-square tests.

RESULTS: Four hundred seventeen patients were included. The mean defect area was 3.1±5.0 cm2 with 9.6% (n=40) of patients with defects involving >25% of the vermilion lip. Fifty-eight percent (n=244) were reconstructed with advancement flaps, 26% (n=108) with island pedicle flaps, and 10% (n=43) underwent complex reconstruction. Median follow-up duration was 89 days. Aesthetic and functional outcomes did not differ between patients with <25% versus 26-50% of the vermilion excised. Patients with >50% vermilion excised were significantly less likely to have satisfactory function (63.6% vs 99.4%, p<.001) and appearance (50.0% vs 91.5%, p=.004). Involvement of >25% vermilion was predictive of increased complications [OR=4.2, 95% CI: (1.6-11.0)] and revisions [OR=3.8, 95% CI:(1.5-9.4)]. Reconstructive method was not associated with any effect on aesthetics or function.

CONCLUSION: Large MMS defects of the vermilion remain challenging to treat and were associated with greater rates of impaired function, appearance, complications, and revisions. Reconstructive method was not associated with alterations in function or appearance.

D140. WITHDRAWN

D141. WITHDRAWN

D142. CONCURRENT CO-SURGEON DIEP FLAP BREAST RECONSTRUCTIONS: FEASIBILITY AND CLINICAL OUTCOMES

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PURPOSE: A co-surgeon model has been shown to be a favorable approach for microvascular breast reconstruction, but concurrent co-surgeon DIEP flap cases have not been well-studied. The authors hypothesize that performing two concurrent co-surgeon bilateral DIEP flap reconstructions would increase productivity and result in non-inferior clinical outcomes.

METHODS: A single-institution, retrospective cohort study was designed utilizing electronic medical record review to identify all cases of co-surgeon free flap breast reconstructions over a 38-month period. Subsequently, study patients who specifically underwent concurrent bilateral DIEP flap breast reconstructions with the same two co-surgeons were identified. The control group consisted of subjects who underwent non-concurrent reconstruction within the same, preceding, or following month of those in the study group. Primary outcome variables were minor and major complications within 90-days postoperatively. Secondary outcome variables were operating time and length of hospital stay. Descriptive statistics, univariate analysis, and multivariate regression analysis were performed.