

synthesis, as well as improving collagen type 1 and fibronectin synthesis in FA-treated samples. 20 micro-molar TA in parallel cultures led to irregular elastin aggregates, causing widespread elastosis.

CONCLUSION: TA in micro-molar levels can counteract the elastin inhibitory effects of Vitamin D3, HA, and FA, potentially elucidating the poor survival of fat grafts in HA-rich regions.

D116. WITHDRAWN

D117. SKIN GRAFT FAILURE AT THE TIME OF MUSCLE FREE TISSUE TRANSFER IN THE COMORBID POPULATION UNDERGOING LIMB SALVAGE PROCEDURES

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PURPOSE: The use of muscle free flaps (FF) with the supplementary use of a split-thickness skin graft (STSG) is often required to complete coverage for complex chronic lower extremity (LE) wounds. This study aims to characterize the use of STSG after LE muscle FF and compare the outcome between immediate versus delayed timing of STSG.

METHODS: A retrospective review of 92 patients receiving a STSG after LE muscle FF was performed. Demographics, comorbidities, FF and STSG operative details, and complications were collected. Primary outcomes included full healing, greater than 85% take, and graft failure anytime postoperatively.

RESULTS: After FF procedure, 71.4% (n=65) received immediate STSG placement and 28.6% (n=26) received

a delayed STSG. Median time for delayed STSG was 12 (IQR = 9) days, of which 73.1% (n=19) patients received wound bed prep in the interim. 31.8% (n=20) immediate STSG achieved full healing compared to 16.0% (n=4) patients in delayed STSG (p=0.186). Overall graft failure rate was 31.5%, occurring at a median time of 35 (IQR = 54) days. History of Charcot arthropathy independently predicted higher rates of graft failure on multivariate logistic regression (OR = 7.06, p=0.021). Rates of graft failure were not significant for immediate (27.0%) and delayed (42.3%) STSG (p=0.157).

CONCLUSION: While there are certain LE comorbidities that significantly contribute to higher graft failures, our results do not show significant differences in outcomes for immediate versus delayed staging of LE muscle FF and STSG procedures.

D118. INGUINAL LYMPH NODE TO VEIN ANASTOMOSIS - 'THE CLEVELAND CLINIC EXPERIENCE AND TECHNICAL REFINEMENTS'

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PURPOSE: Lymphaticovenular anastomosis (LVA) is effective and minimally invasive but is technically demanding. Also, lower trunk and genital swelling are less responsive to distal LVA. Inguinal lymph node to vein anastomosis (LNVA) offers a potential solution by decompressing lymph channels from multiple lymphosomes with a single anastomosis.

METHODS: We retrospectively reviewed patients undergoing LNVA from September 2022 to September 2023. Demographics, indications, and procedural strategies were analyzed. Postoperative outcomes were assessed using standardized measures.

RESULTS: Nineteen patients (11 females, 8 males; age 14-68 years) underwent 18 LNVA procedures. Indications included genital/lower truncal swelling (10/19), prior leg LVA (3/19), or leg liposuction (6/19). Groin ultrasound, indocyanine green (ICG), isosulphan blue injections, lymphoscintigraphy, Savi Scout and vein finder were used for

lymph nodes and veins mapping. Lymph node size, shape, echotexture, hilar blood flow and ICG flow direction guided target node selection. Anterior surface of the lymph node was punctured for side to end anastomosis with a nearby vein. Brisk lymph fluid egress was seen in 8/18 limbs. In 2 limbs plan was converted to LVA in the groin due to no suitable lymph nodes. LNVA was performed alone (6/18), or with simultaneous LVA (8/18) or liposuction (4/18). Twelve patients have demonstrated clinical improvement while 5 reported no change.

CONCLUSION: Our systematic preoperative and operative strategies have streamlined safe execution of LNVA with encouraging early results.

D119. IDENTIFYING RISK FACTORS FOR ELECTIVE REVISIONS AFTER BREAST RECONSTRUCTION

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PURPOSE: There is an increase in women seeking breast reconstruction following mastectomies and a rise in revision surgeries to provide cosmetically acceptable results. It is critical that plastic surgeons give appropriate education regarding patient's reconstructive planning. This study assesses the rate of cosmetic revisions required after breast reconstruction and the associated risk factors.

METHODS: A retrospective review included patients undergoing breast reconstruction with a single surgeon from 2012-2017 following mastectomy. Revision surgery was considered any elective procedure not included in the initial reconstructive plan. Univariate analysis evaluated associated surgical and demographic risk factors.

RESULTS: Our cohort included 412 breast reconstruction patients, seventy-five (18.2%) received a revision surgery. There was no significant difference found between abdominally based flaps, latissimus flap with an implant, or implant-based reconstruction (26.2% vs 20.5% vs 16.3%, respectively). There was significance when considering the total number of cosmetic surgeries, planned and unplanned. Implants had the most procedures (2.06 operations), followed by latissimus flaps (1.68 operations),

and finally abdominally based flaps (1.21 operations, $p=0.000$). Logistic regression showed prior radiation was associated with increased likelihood of revision surgery (OR 1.85, $p=0.025$). Subgroup analysis of patients who received abdominally based free flaps showed significant association between increased preoperative BMIs and revisions ($p=0.043$).

CONCLUSION: Additional cosmetic surgeries are necessary for some breast reconstruction patients. Pre-operative factors, specifically radiation and BMI, were associated with increased revision rates. In our cohort, the type of reconstruction was not predictive of revision. This knowledge base provides informed patient decision-making and improved surgical planning.

D120. OUTCOMES IN IMMEDIATE, DELAYED-IMMEDIATE, AND DELAYED AUTOLOGOUS BREAST RECONSTRUCTION: A FOURTEEN-YEAR NATIONAL DATABASE ANALYSIS

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PURPOSE: There exists a lack of consensus regarding optimal timing and modality of autologous breast reconstruction (ABR). This study compares postoperative outcomes among patients undergoing immediate, delayed-immediate, and delayed ABR.

METHODS: Using the Merative™ MarketScan® Research Databases, 2007-2021, adult female breast cancer patients undergoing mastectomy with concurrent or subsequent ABR were identified and stratified by ABR modality. Demographics, timing of adjuvant radiotherapy, and postoperative outcomes were recorded. Univariate testing and multivariate regression modeling were performed.