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INTRODUCTION: A retrospective study of melanoma patients looking at whether proximity of the primary skin tumour to the lymph node basin influences the chance of sentinel lymph node positivity.

METHODS: 600 patients undergoing sentinel node biopsy for malignant melanoma of upper or lower extremity, using the “10% rule”, were divided into those with a primary melanoma proximal or distal to the knee joint, (up to the ankle), and proximal and distal to the elbow (up to the wrist).

Clinical stage of disease which is known to be related to sentinel node positivity, is taken into account.

RESULTS: 600 patients treated for malignant melanoma of the extremities between January 2009 and March 2017 were included in the study. The age of the patients ranged from 24 to 94 years. The Breslow thickness ranged from 1 to 4 mm. The clinical staging ranged from 1A to 2B.

When broken down by anatomical site of the primary, 18 of the 88 patients (20.5%) with lesions on the arm were found to have positive lymph nodes compared to only 4 of the 31 patients (12.9%) with lesions on the forearm. Furthermore, 11 of 58 patients (19.0%) with lesions on the thigh were found to have positive lymph nodes, compared to only 19 of the 135 patients (14.0%) with lesions on the leg. The increase in rate of lymph node positivity when moving from distal to proximal along the limb, approached statistical significance (Z-score 1.4208, p=0.07).

The stage of disease was taken into account and on comparison of proximal and distal sites, the stage of disease were comparable (Chi-squared test p=0.55.)

CONCLUSION: In patients with malignant melanoma involving the limbs, the proximity of the primary skin tumour to the lymph node basin may have influence on sentinel lymph node positivity.

A limitation of this study is the potential variability in the volume of dye injected may have an effect on the results.

Accurate Prediction of Submental Lymph Nodes Using Magnetic Resonance Imaging and Correlated Clinical Outcome for Lymphedema Surgery

Presenter: Ming-Huei Cheng, MD, MBA, FACS
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INTRODUCTION: Submental lymph node transfer has proved to be an effective approach for the treatment of lymphedema. This study was to investigate the anatomy and distribution of vascularized submental lymph nodes (VSLN) flap using Magnetic Resonance Imaging (MRI) and their clinical outcome.

METHODS: Fifteen patients who underwent 19 VSLN flap transfers for upper or lower limb lymphedema were retrospectively analyzed. The number of submental lymph nodes was compared between pre-operative MRI, pre-operative sonography, intra-operative finding, post-operative sonography and post-operative CTA. The outcome was compared between preoperatively and postoperatively.

RESULTS: All 19 VSLN flaps survived. 215 lymph nodes were identified in 30 submandibular regions by MRI. The mean number of submental lymph nodes on pre-operative MRI was 7.2 ± 2.4, on pre-operative sonography was 3.2 ± 1.1, on intra-operative finding was 3.1 ± 0.6, post-operative sonography was 4.6 ± 1.8, and post-operative CTA was 5.2 ± 1.9. 61% of the lymph nodes were located in the central two quarters of the line drawn from the mental protuberance to the mandibular angle. The actual harvest rate of submental lymph nodes was 72.2%. At a 12-months follow-up, mean episodes of cellulitis were improved from 2.7 ± 0.6 to 0.8 ± 0.2 (p < 0.01); mean of circumferential difference was improved 3.2 ± 0.4 cm (p < 0.03). The overall Lymphedema Quality-of-Life was improved 4.9 ± 0.3. (p < 0.04)

CONCLUSION: The pre-operative MRI is a useful tool for the detection of mean 7.2 submental lymph nodes. Mean 72.2 % of submental lymph
nodes can be successfully transferred for extremity lymphedema with optimal functional recovery.

**Augmentation Gluteoplasty - the XYZ Technique**

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**INTRODUCTION:** A woman with small breasts but proportionate waist and hips still has a feminine body, but one with flat buttocks and large shoulders or narrow hips will never have a totally feminine body, regardless of how beautiful her breasts are. So, the most important detail of a feminine body is the balance of its contour.

**PURPOSE:** The objective of this work is to share our experience performing the XYZ technique for buttocks enhancement described by Raul Gonzales, in 2004. With this technique we can easily insert an implant into the gluteus maximus with no risk of sciatic nerve compression and no limitations in the size of implant.

**METHODS/TECHNIQUES:** The incision is done directly over the intergluteal crease, preserving the sacral cutaneous ligament. After the skin drawing, of an inverted heart, the subcutaneous tissue is undermined just over the muscle fascia till the end of the drawing. Next step is a 6 cm muscle incision in the same direction of the muscle fibers.

The undermining should split the muscle at the middle, and the same amount of muscle should be left in front of and behind the implant. The point X is found introducing a finger into the muscle incision 2–3 cm deeper. This is half of the thickness of the muscle and this is our plane of undermining. Point Y is in the iliac crest 5 cm beyond the upper-posterior iliac spine and is our superior limit of undermining. The point Z, the lower limit of the undermining, is reached rotating the underminer from point Y towards the femur trochanter. Usually this pocket is enough to accept relatively large round implants as well as 350 or 400 cc in a medium-sized patient. Once the implants are placed into the pockets the incision is closed from the muscle fascia till the skin, avoiding communication between the intramuscular pocket and the supra-facial subcutaneous one, to avoid seroma formation.

**RESULTS:** We have been using this technique routinely since 2006 in more than 300 patients.

**CONCLUSION:** With this technique we can easily find the 3 stop points of the undermining to insert an implant into the gluteus maximus avoiding the most common complication: the palpable implant for a too shallow pocket in the lateral areas.

**Comparative Evaluation of Smoking in Plastic versus General Surgical Postoperative Complications: A Propensity-Matched Analysis**

**Presenter:** Yoshiko Toyoda, BA  
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**INTRODUCTION:** Smoking is an established modifiable risk factor for perioperative complications. This is especially relevant in elective plastic surgical (PS) than in urgent general surgical (GS) procedures. From 2005–2014, smoking rate among U.S. adults decreased from 20.9% to 16.8%. This study compares smoking prevalence in patients undergoing plastic and general surgical procedures, and the postoperative complication profile when smoking is isolated as an independent risk factor.

**METHODS:** We used the American College of Surgeons National Surgical Quality Improvement Program (ACS-NSQIP) database to examine smoking and 30-day postoperative complications for plastic and general surgical procedures. Patients were propensity-score matched (PSM) for demographics and comorbidities to isolate smoking and minimize confounders.

**RESULTS:** We examined 294,903 patients from 2005–2014. The smoking rates in GS cohort