Conclusions: SSM/NSM is an efficient treatment option for patients suffering from breast cancer. An aesthetic pleasing surgical outcome is a great advantage of this surgical procedure. Our analysis showed a slightly decreased tumor recurrence rate after SSM/NSM compared to rates after just plain mastectomies. But individual treatment requirements should always be taken into account.

8.50 THE EFFECT OF AXILLARY LYMPH NODE SAMPLING DURING MASTECTOMY ON BREAST RECONSTRUCTION COMPLICATIONS

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Introduction: Immediate breast reconstruction using tissue expanders is the most common form of breast reconstruction after mastectomy for breast cancer. During mastectomy, axillary lymph nodes are biopsied to stage patients. The purpose of this study is to investigate post-operative complications with respect to extent of lymph node dissection.

Materials and Methods: Electronic medical records of 282 patients (467 breasts) undergoing mastectomy with immediate reconstruction at our institution from 2010–2012 were reviewed to collect clinical and post-operative data. Charts were analysed to determine the association between the absolute number of axillary lymph nodes removed and post reconstructive incidence of skin necrosis, cellulitis, seroma, and expander removal. Independent sample t test and linear regression were used to analyze data.

Results: The overall incidence of all post-operative complications per breast was 23.8%. Breasts in which a complication occurred had a mean of 6 nodes removed versus 4 nodes in uncomplicated breasts (p=0.018). More complications were noted in patients who underwent axillary lymph node dissection (ALND) compared to sentinel lymph node biopsy (SLNB; p=0.008). Expander removal and seroma occurred more frequently in breasts which had a greater number of nodes removed (p=0.006 and p=0.015, respectively).

Conclusions: Axillary lymph node removal of >4 nodes has a higher risk of post-reconstructive complications. Specifically, there is a higher risk of seroma formation and expander loss. ALND has a higher incidence of breast reconstruction complications compared to SLNB.

9.00 THE SAFETY AND EFFICACY OF UTILIZING NEGATIVE PRESSURE WOUND THERAPY AFTER SARCOMA RESECTION

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Introduction: The use of Negative-Pressure Wound Therapy (NPWT) on post-sarcoma resection wounds with uncertain margins is controversial due to the fear that it could promote cancer cell growth. There is no clinical or basic science data to address this theoretical concern. This study investigates the safety of NPWT following sarcoma resection by comparing local recurrence rates and wound-healing outcomes for NPWT and non-NPWT patients with open wounds following sarcoma resection.

Materials and Methods: A retrospective analysis was performed on all patients who underwent extremity or superficial sarcoma resection at a single center over a 10-year period (2005–2015). Patients with open wounds following sarcoma resection and at least 6 months of follow up were included in this study cohort. Data on wound healing, tumor pathology, and recurrence were collected. Fisher’s Chi-square and Student’s t-test were used to determine statistical significance.
RESULTS: Of the 129 sarcoma patients who underwent resection during the study period, 18 had open wounds after resection, and eight patients received NPWT. Median follow up was 932 days. Tumor grade (>0.05) and wound size following resection (p = 0.276) were similar between the NPWT and non-NPWT groups. The recurrence rate of patients with NPWT was 0%, while the recurrence rate of patients without NPWT was 20% (p = 0.477). Time to wound healing (p = 0.699) and wound complications (infection, wound dehiscence, bleeding, or hematoma) were similar between the two groups (p>0.05). There was no difference in time to adjuvant treatment between the two groups (n=5 for NPWT, and n=3 non-NPWT, p=0.515).

CONCLUSIONS: Based on our results, NPWT use after sarcoma resection is not associated with increased local recurrence. Time to wound healing was not significantly different between NPWT and non-NPWT patients. A limitation of this study was its small sample size, and further larger scale studies are indicated.

9.10 EVALUATION OF SLN STATUS IN PATIENTS WITH CUTANEOUS MELANOMA USING THINPREP® PROCESSED FNA SPECIMEN

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INTRODUCTION: The sentinel lymph node (SLN) biopsy in melanoma assesses reliably the status of the regional lymph nodes and provides valuable prognostic information. The current study was designed to evaluate the feasibility of fine needle aspiration (FNA) cytological specimens processed with ThinPrep® (TP) (Hologic, Inc, Marlborough, MA, USA) as a practical collection methodology for performing evaluation of the SLN status in patients with melanomas.

MATERIALS AND METHODS: Seventy (70) patients with histologically confirmed cutaneous melanoma underwent intraoperative FNA biopsy of the SLN. All the specimens were examined, using light microscopy, by the same pathologist and cytopathologist, neither of had any knowledge of the medical history of the patient. The histological result of the excised SLN was considered as the final diagnosis.

RESULTS: Ninety-two (92) SLNs were identified, with a ratio of 1.3 SLN per patient. The unsatisfactory rate for TP cytology was 2.17% and was due to inadequate specimen (n=2). Sensitivity, specificity, positive predictive value (PPV), negative predictive value (NPV), and overall accuracy (OA) for the TP technique were 92.31%, 100%, 100%, 97.06%, and 97.83%, respectively. The preparation of just one slide in each case proved to be sufficient for the cytological evaluation of the SLN status.

CONCLUSIONS: TP cytology is an accurate diagnostic tool for the evaluation of the SLN status with accuracy comparable to those of the histological analysis. TP immunostained slides have a clean background and even staining with no entrapment of immunoreagents in thick cell aggregates. Lastly, the quality and quantity of cell sampling enabled the extended storage of cytological material in liquid medium and the establishment of a cell archive, which until now we had achieved only with paraffin-embedded tissues.