

axillary recurrence, while no axillary recurrences were found in the SN+ve group ($P=0.50$). Differences in tumour characteristics were reviewed, and significant differences in tumour size (larger in the SN+ve group, $P=0.014$), and lymphovascular invasion (more frequent in the SN+ve group, $P=0.026$) were noted. Other differences were not significant. Blue SNs were harvested in 244 patients (96%) and only unstained SNs were harvested in 9 patients (4%). Among the 57 SN+ve patients, foci were found in blue SNs in 40 patients (70%) while they were found in only unstained SNs in 17 patients (30%). The mean numbers of blue nodes and non blue nodes excised were 2.3 & 3.7 respectively. A single metastatic SN was found in 58% of the SN+ve patients while 19% had 3 or more +ve nodes. Two patients had allergic reactions and recovered quickly with antihistaminics.

Discussion: SNB with blue dye-assisted 4 axillary node sampling is a useful technique for surgeons who have no access to radioisotope facilities. Given that 30% had metastatic foci in only unstained SNs, we emphasize that blue dye alone is insufficient, and that careful intraoperative palpation and removal of any palpable suspicious nodes whether they are blue or not is recommended. In this study the complication rates were similar to those reported from previous ones.

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Poster

Micrometastases in Sentinel Lymph Node Biopsy. Is it Necessary an Axillary Dissection? Experience in Centro Clinico De Estereotaxia (CECLINES), Caracas-Venezuela

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Background: There is controversy regarding the clinical importance and biological significance of micrometastases and because of this there is doubt on what to do with a micrometastases. Because of this our aim is to observe the outcome of a group of patients with diagnosis of micrometastases in sentinel lymph node biopsy and compare its behavior with a group of patients with sentinel lymph node negative and sentinel lymph node positive for macrometastases.

Methods: Retrospectively we studied CECLINES's database with 704 patients: 2.59% (18/693) micrometastases, 19.91% (138/693) for macrometastases (pT1-2, pN1) and 79.07% (548/693) for node negative group. Out of the 18 patients with micrometastasis, breast surgery + axillary dissection was performed in 12 patients and breast surgery plus adjuvant therapy (without axillary dissection) in 6 patients.

Results: The median follow up was 4.22 ± 0.42 years (1-22). The median age for micrometastases was 54.11 ± 1.8 (39-68). Tumor size for micrometastases group 14.05 ± 2.69 mm (0-40 mm). The hormone receptor expression was: RE+ 94.44%, RP+ 83.33%, proliferation index Ki67 83.23% (moderate or elevated). In the micrometastases group there was a 5.55% (1/18) of local recurrence. There wasn't regional recurrence. The NSLN rate for metastasis was 33.33% (8/12). The overall survival at 5y was for micrometastases 100%, for node negative 98% and for macrometastases 93% (micrometastases vs AN, $p > 0.05$ and micrometastases vs macrometastases, $p < 0.05$).

Conclusion: Because of the absence of regional recurrence and the excellent overall survival for the micrometastases group we think that an axillary dissection might be avoid in a near future in a selected group of patients with favorable histopathologic and immunohistochemistry characteristics (hormone receptors positive, low Ki67, C-erbB-2 negative, small tumor size, absence of lymphovascular invasion, low histologic grade) and under the observation of a clinical trial, but until we don't have this 'ideal profile' and because the risk of persistent disease in the axilla, an axillary dissection must be performed in every patient with a micrometastases.

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Poster

Intraoperative Assessment of Surgical Margins During Breast Conserving Surgery of Ductal Carcinoma in Situ by use of Radiofrequency Spectroscopy

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Background: Assessment of margins when excising DCIS of the breast is difficult. Frozen section is unreliable and specimen intraoperative radiography only provides information regarding the extent of the visualized lesion or the microcalcifications. Insufficient or positive margins are the strongest predictor for risk of local recurrence.

The aim of our study was to evaluate the performance of MarginProbe® (Dune Medical Devices, Caesarea, Israel) in assessing surgical margins for DCIS and lowering the re-excision rate after initial BCS.

Material and Methods: The device includes a disposable hand-held probe and a console, is based on radiofrequency spectroscopy, and detects differences in dielectric properties between normal and malignant breast tissue.

The multicenter single arm, post market study was performed on 55 patients at 3 German sites under approval of institutional review boards. MarginProbe® was used as an adjunctive tool to the current practice. All specimens were sent for paraffin embedded pathological analysis.

The procedure success was defined as both: negative margins after initial BCS; and early identification of an extended lesion, with conversion to mastectomy instead of performing a re-excision BCS.

Results: From September 2009 until May 2010, 55 patients were enrolled in the study. Thirty-nine were available for this analysis. In comparison with our historical re-excision rate of 38.8% for patients with DCIS undergoing BCS, use of MarginProbe® led to a reduction in the re-excision rate by more than 50%, down to 15% ($p < 0.01$) (surgical margin width of 5 mm). The procedure success was dependent on the clean margin width definition (5 mm: 64%; 2 mm: 77%; 1 mm: 90%). Resected average main specimen tissue volume was 37 cc. Tissue volume associated with false positive margins was, on average, 8.1 cc per patient. Due to the current discussions regarding margin width criteria, we also calculated re-excision rates using 2 mm and 1 mm margin widths. For this definition, re-excision rates were 13% and 7%, respectively.

Discussion: These results demonstrate that adjunctive use of the device is effective in achieving procedure success and reducing re-excisions for DCIS patients. Intraoperative margin assessment for invasive breast cancer can be performed by ultrasound. However, it is a macroscopic assessment. Although frozen section is a microscopic evaluation, it is time-consuming and limited to invasive cancer. For DCIS the surgeon does not have sufficient information about the margins intraoperatively.

Conclusion: MarginProbe® provides a technique that is fast and effective. The benefit for the patients results in a significantly reduced re-excision rate, which may also lead to a lower rate of infections and an improvement of patient's cosmesis. For invasive breast cancer it could replace frozen section and might be the long awaited tool for intraoperative margin assessment of non-palpable lesions and DCIS.

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A Study of Clinical and Histopathologic Differences in T Stage of Breast Cancer Diagnosed at Vacuum-assisted Breast Biopsy (VABB)

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Background: Vacuum-Assisted Breast Biopsy(VABB) is a biopsy method that allows a complete removal of target lesions with the same accuracy result as in excisional biopsy, but given it comes as multiple fragments, it is rather difficult to measure a tumor size in histopathology, leading to underestimation of staging and possibly affecting the decision on the use of adjuvant therapy. Authors have undertaken this study in order to determine the difference between clinical T stage based on ultrasound(US) imaging before surgery in VABB diagnosed breast cancer and T stage in histopathology performed after radical mastectomy.

Method: Retrospective study analyzed medical records of 168 patients diagnosed with invasive breast cancer among 248 patients who received radical mastectomy after being diagnosed with malignancies at VABB for diagnosis and treatment purposes at Kangnam CHA Hospital between Jan.

2003 and May 2011. Patients with a mammographic lesion underwent VABB under ultrasonographic guidance (USG) with an 8-Gauge needle. Lesion classified as BIRADS 4a or below was completely removed under USG and patients classified as BIRADS 4b or above received VABB for the purpose of incisional biopsy only.

Result: When comparing the tumor size measured by clinical T stage based on US and by final pathological T stage after surgery, we found in 10 out of 10 cases (100%) in pT1a, the histologically measured tumor size was smaller than when measured by the US method. The pT1b included 38 cases, in which 31 cases (81.6%) showed a smaller size in histology than in imaging. 32 out of 62 cases (51.6%) in pT1c, 26 out of 55 cases (47.3%) in pT2 and zero out of three cases in pT3 (0%) reported a smaller size in histology compared to US, indicating that the greater size of primary tumor, the easier it is to have a pathological measurement leading to less occurrence of underestimation because the specimen removal diagnosed at VABB is relatively low and residual lesion remains across a wide area.

As a result of classification by ultrasound examination, 23 out of 35 cases (65.7%) at BIRADS 3-4a who underwent complete removal at VABB and 76 out of 133 cases (57.2%) at BIRADS 4b-5 who underwent incomplete excision for biopsy purposes reported a smaller size in histology compared to US, showing that histological underestimation occurs more often when the lesion is confirmed as malignant after complete removal of a target lesion through VABB.

Conclusion: In patients diagnosed with breast cancer through VABB, it is confirmed that when primary tumor is smaller at the point of diagnosis and complete removal is performed for the lesion of BIRADS 3-4a, it is more likely to result in underestimation in the histopathological measurement after breast cancer surgery compared with the size measured by pre-surgery US. Due to this underestimation, patients can miss adjuvant chemotherapy essential to their treatment, so it is necessary to consider the size of the clinical lesion appropriately prior to determining staging.

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Oncoplastic Breast Surgery: Oncologic Benefits and Limitations

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Background: Breast conservation therapy with lumpectomy is a valuable part of breast cancer treatment, with equivalent survival outcome to that of mastectomy. Recently, oncoplastic surgery has been popularized as a method to improve margins and yield better aesthetic outcomes when traditional lumpectomy either anticipates poor results or is not possible. This study was undertaken to examine the oncologic benefits and limitations of this technique in providing adequate breast conservative therapy.

Methods: This was a retrospective review of the surgical outcomes of all patients offered breast conserving therapy at a tertiary care hospital from 2008 to 2011. Patients were divided into three groups: the Traditional lumpectomy group (no attempt was made to close the defect), Oncoplastic level I group (less than 20% of the breast tissue excised; general undermining to close the defect) and Oncoplastic level II group (skin resection, greater than 20% of the breast tissue excised) which included batwing resection, Binelli mastopexy, reduction and J-raquet mammoplasties.

Results: A total of 237 patients had lumpectomies during this period; 106 patients in the Traditional, 97 patients in level I, 34 patients in the level II Oncoplastic group. There was no significant difference in the age, cancer stage, proportion of DCIS versus invasive disease, histology of invasive disease, ER, PR, Her 2 status and postoperative complication rate between all three groups. No statistically significant difference in the ability to get wide margins ($p=0.09$) or in the re-excision rate ($p=0.66$) between either of the oncoplastic and the traditional groups. However, the level II Oncoplastic group had a better ability to provide adequate resection for multifocal ($p=0.03$) and larger T stage ($p=0.01$) tumors, but only when DCIS was excluded. Finally, oncoplastic surgery achieved adequate resection of tumors in the lower inner/ lower outer quadrants ($p=0.01$).

Conclusion: Oncoplastic surgery level II techniques extend the scope for breast-conserving surgery, allowing for resection of the larger and multifocal tumors in traditionally cosmetically difficult quadrants of the breast, without greater postoperative complication rates.

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Intercostobrachial Nerve Role in the Postmastectomy Pain Syndrome

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Background: Breast cancer patients who underwent axillary lymphadenectomy often complain about pain, reduced sensation or sensory deficit. These clinical complaints are known as postmastectomy pain syndrome.

There are many clinical and laboratorial studies that identify the etiology of this syndrome and focus on the damage of the intercostobrachial nerve.

In our research we assessed the role of intercostobrachial nerve in postmastectomy pain syndrome and tried to reveal patient risk factors which increase risk of developing this syndrome.

Material and Methods: In the study we included unselected two following patients groups – in a study group were included 65 patients who underwent axillary lymphadenectomy with intercostobrachial nerve routinely sacrificed and control group where 65 patients underwent axillary sentinel lymph node biopsy. All patients underwent the procedure at least 8 months before we interviewed them. We collected data from patients' medical histories and conducted interviews with patients, asking them to assess pain, sensation, hand stiffness, weakness and edema. Patients also filled SF36v2TM questionnaires.

Results: In axillar region there are significant differences in pain sensation between both groups. In the study group 16 patients feel constant pain vs 7 patients in control group ($p=0.010$, pTM physical health summary in study group 48.7 points vs 52.3 points and mental health summary 34.6 vs 35.2. Comparing with general population (50 points average) in both groups are significant decrease in social function 35 vs 35 points, emotional role 32.6 vs 32.6 points and mental health 41.6 vs 38.7.

Conclusions: Intercostobrachial nerve plays an important role in axillar region pain development as well in sensory deficit development. Patients with higher body mass index have increased risk to develop pain syndrome after axillar lymphadenectomy with intercostobrachial nerve transection. Both groups showed equally decreased social and emotional life quality.

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Modified Extended Latissimus Dorsi Myocutaneous Flap with Added Vascularised Chest Wall Fat in Immediate Breast Reconstruction of Large Breast Women After Sparing Mastectomies

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Background: The development of SSM & NSM with immediate breast reconstruction achieved the goal of radical excision of the tumor with improved cosmetic outcome. Immediate autologous breast reconstruction yields the most durable and natural appearing results with the greatest consistency. The aesthetic results from autologous reconstruction are superior to those of implant based reconstruction due to their versatility, their more natural appearance, consistency and durability. Moreover, autologous tissue can better withstand radiotherapy.

Patients and Methods: In our series; five hundred & seventy patients of stage I to III breast carcinoma have autologous breast reconstruction with modified extended LDF with added vascularised chest wall fat; 47% had SSM and the remaining had NSM. Age ranges from 23 to 53 years (median = 40.5).

Results: Subjective patient satisfaction was excellent in 71%, good in 20%, fair in 7% & poor in 2% of cases. Bilateral size & shape symmetry are excellent in 56%, good in 26%, fair in 12% & poor in 6% patient. The overall RT-related complications are 9%, the most common complications are skin burns (5%) & fat necrosis (4%). Patients are followed for mean follow up of 75.5 months (2-96).

Conclusion: Modified extended latissimus dorsi myocutaneous flap with added vascularised chest wall fat is a single stage totally autologous breast reconstruction allows reconstruction without the additional cost of an implant, many complications of synthetic implants, micro vascular procedure second stage surgery or surgical manipulation in the other breast. In addition the overall survival & local recurrence rates were similar to MRM.

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The Oncoplastic Surgery in Large Breast Egyptian Women with Cancer

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Background: The management of breast cancer in patients with large breast carries a lot of difficulties; breast conservation therapy develop more complications and unacceptable cosmesis due to heterogeneous distribution of the radiation dose and improper positioning of the breast between treatments. Traditional mastectomy is associated with unacceptable asymmetry and unpleasant discomfort due to the huge volume and weight.

Patients and Methods: Three hundreds of large breast women with stage I to III breast carcinoma have oncoplastic surgeries. Two hundred patients had sparing mastectomies with immediate reconstruction using extended LDF with added vascularized chest wall fat, fifty patients had therapeutic reduction mammoplasty, twenty patients had conventional