

had ER positive tumors in 76.5% vs. 47.3% in other group, PR positive tumors in 46.8% vs. 52.3% in other, HER 2/neu negative tumors in 76.9% vs. 56.2% in other. Patients with a positive margins at the initial resection showed higher lobular histology rate (15.3% vs. 6.4%), incidence of multiple ipsilateral tumors (23.1% vs. 15.4%), presens of intraductal component (76.9% vs. 65.1%), but these differences between two groups were not statistically significant. 73.1% of all patients were tested for the two common founder mutations in BRCA1(4153delA and 5382insC). There was 1 BRCA1(5382insC) mutation-positive patient in the other group and no mutation-positive patients in the positive margin group. Mean follow-up time was 19.9(11–37) months, and there were no local recurrences during the follow-up period in the tumor positive margin group.

Conclusion: The overall percentage of positive margins in the Pauls Stradins Clinical University Hospital Breast Unit is within the predefined targets. Lobular histology, multiple ipsilateral tumors and presens of intraductal component have shown a tendency of higher risk for inadequate margins of excision.

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Poster

Skin-sparing Mastectomy and Immediate Breast Reconstruction is a Safe Option in the Management of Early Stage Breast Cancer Patients

T. Lam¹, S. Monnier¹, O. Meyer², V. Vinh-Hung³, B. Pittet², G. Vlastos¹.

¹Hôpitaux Universitaires de Genève, Senology Unit Department of Gynecology and Obstetrics, Geneva, Switzerland; ²Hôpitaux Universitaires de Genève, Plastic and Reconstructive Surgery Department of Surgery, Geneva, Switzerland; ³Hôpitaux Universitaires de Genève, Department of Radiotherapy, Geneva, Switzerland

Introduction: Skin sparing mastectomy (SSM) followed by immediate breast reconstruction (IBR) is a surgical approach that allows a mastectomy while preserving the natural envelope of the breast. SSM is used for prophylaxis for high-risk patients and BRCA carriers. It is also a surgical option for patients with large in situ lesions such as DCIS not accessible to breast-conservation or to invasive breast cancer associated with extensive in situ disease.

The present study will evaluate the oncological safety, outcome and post-operative complications.

Material and Method: Between January 2001 and December 2007, a total of 1500 patients with breast cancer were treated, out of them 132 were treated by SSM and IBR in our senology unit. We retrospectively reviewed patient and tumor characteristics, type of cancer surgery, reconstruction and immediate post-operative complications. We evaluated local and systemic recurrence rates, as well as survival with a median follow-up of 28 months (range 0–97).

Results: Mean age at diagnosis was 51 years (range, 28–77). Most of the patients (>60%) were treated for early-stage breast cancer either invasive ductal (50%) or invasive lobular (10%) that required a SSM. However 40% of them were diagnosed with extensive ductal carcinoma in situ (DCIS). More than 76% of patients were estrogen +/- progesterone receptors positive.

Oncologic surgery consisted in a SSM including sentinel lymph node biopsy or level I-II axillary lymph node dissection as needed. Periareolar or horizontal incisions were preferred. Neoadjuvant chemotherapy was administered in 12 patients (9%).

Immediate reconstruction was performed using exclusively breast implants in the majority of patients (102 patients, 77%) or in association with autogenous tissue by latissimus dorsi musculocutaneous flap in 16 patients (12%). Exclusive autogenous tissue reconstruction was performed in 14 patients (11%) including latissimus dorsi musculocutaneous flap in 8 patients (57%), and transverse rectus abdominis myocutaneous in 6 patients (43%). Adjuvant treatments consisted at least in hormonal therapy in most patients. However 25 patients (19%) received additional adjuvant chemotherapy. Radiation therapy was mandatory after surgery for 6 patients (5%). The AJCC/TNM pathologic stages were respectively 0 (n=42, 32%), I (n=63, 48%) and II (n=28, 21%). Five patients experienced recurrences, respectively local only in 2 (1.5%), local followed by systemic recurrence in 2 (1.5%) or systemic in 1 (0.8%).

Two patients died from their disease and 2 died from other causes.

Immediate post-operative complications were relatively low (7%). 7 patients required subsequent surgery with breast implants removal due to cutaneous necrosis in 4 of them, infection in 2 and hematoma evacuation in 1. 1 patient had a dehiscence wound and 1 had cutaneous necrosis who were treated with local dressing. 1 patient presented vascular complication related to a pedicle thrombosis that required an emergency re-anastomosis.

Conclusion: SSM associated with IBR is a safe surgical technique and does not increase the risk of local or systemic recurrence. It is associated with low morbidity in particular morbidity related to reconstructive surgery. This approach can be proposed to selected early stage breast cancer patients.

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Poster

Axillary Recurrence in Breast Cancer Patients Following Negative Sentinel Lymph Node Biopsy

G. Clayton¹, K. Teo¹, N. Borg¹, G.C. Wishart¹, P. Forouhi¹, J.R. Benson¹.

¹Addenbrooke's Hospital, Cambridge Breast Unit, Cambridge, United Kingdom

Background: Sentinel lymph node biopsy (SLNB) is an accepted standard of care with level 1 evidence supporting its safety and efficacy in patients with clinically node negative breast cancer. There is a finite false negative rate which is minimised by dual localisation techniques but rates of regional recurrence are low. Published rates of axillary recurrence range from 0–1.4% but a systematic review reported an average rate of 0.3% at a median follow-up of 34 months for this group of patients. We report on axillary recurrence amongst a cohort of SLNB negative patients followed up for almost 5 years.

Material and Methods: A retrospective analysis was undertaken to examine axillary recurrence amongst a group of 302 clinically node negative patients undergoing SLNB for symptomatic and screen detected invasive breast cancer between 1.1.2004 and 31.12.2006. Patients were treated in a single centre which did not routinely practice pre-operative axillary ultrasound at the time. Dual localisation techniques with blue dye (Patent Blue) and isotope (Technetium^{99m} nanocolloid) used for SLNB. All patients were classified as SLNB negative on H&E step-sections but included some patients with deposits of isolated tumour cells on either H&E or immunohistochemistry (≤ 0.2 mm). Exclusions included 5 patients with a previous history of breast cancer, 10 patients who had died without recurrence and 15 patients with DCIS (or microinvasion) only on final histology. This left 272 patients for analysis, the majority of whom received some form of systemic therapy. Neo-adjuvant patients with a negative SLNB pre-treatment were included as these did not proceed to axillary dissection (ALND) after chemotherapy. The median age was 61 years with a range of 24–88 years and median tumour size was 14 mm (range 1.5–40 mm). 80% of patients underwent breast conserving surgery and had good prognosis tumours (grade I & II; ER positive). Follow-up was measured from the time of surgery to the last documented contact with the patient.

Results: At a median follow-up of 59 months (range 10–89 months) there has been only one case of axillary recurrence (1/272). This occurred after 4 months and was the first site of treatment failure. Interestingly, only a single sentinel node was harvested and this case may have represented a false negative case (mean number of sentinel nodes = 2.62). This patient remains well at 46 months following ALND and chemo endocrine therapy for regional recurrence. 12 patients have developed distant disease without evidence of locoregional recurrence after a median time interval of 41 months (range 12–70 months). 1 patient had isolated chest wall recurrence 12 months after mastectomy and subsequently died with bone metastases at 28 months.

Conclusion: This low rate of axillary recurrence (0.37%) accords with other reports and compares favourably with ALND. Finite rates of false negativity associated with SLNB do not appear to translate into higher rates of axillary relapse with prolonged follow up. Incorporation of axillary ultrasound will de-select some patients for SLNB and further reduce any residual axillary tumour burden.

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Poster

Intraoperative Radiological Evaluation of Margins in Breast Conserving Surgery: Analysis of 140 Cases

T. Ihrari¹, D. Quaranta¹, Y. Fouché¹, I. Raoust¹, J.C. Machiavelli¹, C. Maestro², C. Chapellier², B. Flipo¹. ¹Centre Antoine Lacassagne, Breast Cancer Unit, Nice, France; ²Centre Antoine Lacassagne, Radiology Unit, Nice, France

Background: In breast conserving surgery (BCS), the surgeon's primary objective is to obtain negative histological margins, which are known to be a major prognostic factor for tumour recurrence. Intraoperative evaluation of margins status (MS) relies on histological examination (HE). However, HE can be time consuming and may need a specific organisation (pathologist in the operating room, transport of the lumpectomy to the pathology unit).

In order to propose an alternative to intraoperative HE, we have lead a prospective study and analyzed the concordance between the MS obtained with HE and the MS obtained using the FAXITRON™ (FX), a dedicated X-ray imaging device set up in the operating room.

Patients and Methods: One hundred and forty patients (mean age = 63) treated with BCS were included. The treated lesions were ductal carcinoma in situ DCIS (11%), invasive ductal carcinomas IDC (60%), invasive lobular carcinomas ILC (16%) and a combination of histological subtypes (13%). The breast lesions were palpable in 43% of the cases. All the lesions were visible on the preoperative mammograms.