

whether Sentinel Lymph Node Detection (SLND) could be achieved with use of radioisotopic method alone instead of the usual combined method.

Patients and Methods: This study was conducted between January and May 2011, we performed the SNLD on patients with T1, T2, N0 breast cancer. In Group 1 (108 patients until the reported death) the combined method was preferred whereas in Group 2 (102 patients after the reported death) radioisotopic method alone was preferred. We registered for all patients SNLD rate, number of Sentinel Lymph Node (SLN), duration of the surgery and number of SNLD in Group 2 which required the use of Patent Blue.

Results: We did not find any significant statistical difference between group 1 and group 2 for the SLN detection rate, respectively 98.1% and 100% ($p = 0.498$); the number of SLN, 3 and 2 ($p = 0.074$), and the duration of surgery, 54 and 51 minutes ($p = 0.392$). Patent blue was used on all patients in group 1 whereas only 39.2% patients in group 2 required blue patent to complete the detection, $p < 0.001$. Surgeons with young experience (< 5 years) are more ready to change their detection technique with 79.5% of SLND with isotopic method alone.

Conclusion: this is a preliminary study which demonstrates the feasibility of SLND by the radioisotopic method alone. The side effects of patent blue could be reduced.

Table Description of SLN biopsy in each group

	Group 1	Group 2	p
SLND rate	98.10%	100.00%	0.498
Method of detection			<0.0001
Patent blue used	108 (100%)	45 (44.1%)	
Patent blue alone	14 (13%)	5 (4.9%)	
Isotope + patent blue	92 (85.2%)	39 (38.2%)	
Isotope + patent blue + lymphoscintigraphy	2 (1.9%)	1 (1%)	
Isotope alone	0	57 (55.9%)	
Number of SLN			0.2476
1	26 (24.5%)	29 (28.4%)	
2	26 (24.5%)	33 (32.4%)	
3	21 (19.8%)	20 (19.6%)	
>3	33 (31.1%)	20 (19.6%)	
Duration of surgery			0.392
average (minutes)	54	51	
Type of surgery			0.2232
Conservative treatment	98 (90.7%)	87 (85.3%)	
Radical treatment	10 (9.3%)	15 (14.7%)	

607

Poster

Validation of Katz Nomogram and Chagpar Score for Predicting Likelihood of Having Four or More Positive Nodes in Patients with Sentinel Lymph Node-positive Breast Cancer Patients.

R. Nadeem¹, L. Gudur², Z. Saidam¹. ¹East Lancashire Trust Hospitals, Department of Breast Surgery, Manchester, United Kingdom; ²Lancashire Teaching Hospitals NHS Foundation, Department of Cellular Pathology, Manchester, United Kingdom

Background: The presence of 4 or more metastatic axillary lymph nodes in breast cancer patients is considered an indication for post-mastectomy radiotherapy (PMRT) treatment to the axilla and chest wall. Immediate breast reconstruction is usually avoided if radiotherapy treatment is thought to be indicated.

Predicting the occurrence of extensive axillary nodal involvement (≥ 4 positive nodes) would aid in making decisions regarding post-mastectomy radiotherapy and immediate breast reconstruction.

Two models have been introduced for predicting the likelihood of having four or more positive nodes in SLNB positive patients. In this paper we validate their accuracy in a cohort of British breast cancer population.

Methods: 147 patients with 1–3 positive SLNs who underwent completion ALND were identified. Multiple pathological variables including the histological size of the SLNs metastases were analysed.

Two models by Katz and Chagpar were applied to our data set. The area under the receiver-operator characteristic (ROC) curve (AUC), 95% confidence intervals and false negative and positive rates were calculated for these models.

AUC values, 95% CI, clinical utility, false negative and positive rates

Nomograms	Katz nomogram	Chagpar score
AUC values	0.663	0.701
95% CI	0.555 to 0.770	0.594 to 0.807
Clinical utility for 5% cut off value	46/147 (31.3%)	12/147 (8%)
False -ive rate for $\leq 5\%$ Probability (P)	5/46 (11%)	0/12 (0%)
Clinical utility for $\geq 95\%$ cut off value	0%	11/147 (7.5%)
False +ive rate for $\geq 95\%$ Probability (P)	–	7/11 (63.6%)

Results: 30/147 (20.4%) patients who had ALND after positive SLNB had 4 or more metastatic axillary nodes.

Conclusion: We validated two models with variable success. Chagpar score outperformed Katz nomogram contrary to the previous validation studies. Further larger studies are required to validate these models before using them in clinical practice.

608

Poster

Matched Pair Analysis Comparing Breast Conservation (BCT) with Immediate Techniques of Oncoplastic Surgery (iTOP): Morbidity and Cosmetic Assessment

S. Adam¹, P. Dubsky², R. Exner², S. Biegenzahn², P. Panhofer², M. Rudas³, R. Jakesz², M. Gnant², F. Fitzal². ¹Medical University of Vienna, Wien, Austria; ²Medical University of Vienna, Surgery, Wien, Austria; ³Medical University of Vienna, Pathology, Wien, Austria

Introduction: Oncoplastic surgery has been shown to increase morbidity with unclear objective cosmetic outcome. Prospective trials are missing.

Materials and Methods: 30 patients with unilateral breast cancer operated with immediate techniques of oncoplastic surgery (iTOP) using reduction mammoplasties in the same breast were analyzed. Matched pairs operated with simple breast conserving therapy (BCT) up to a total number of 60 patients were found within a local database. Patients were called for a special follow up where history has been completed and a frontal picture for breast symmetry analyzes has been taken. Quality of life database were filled out.

Results: A total of 15 matched pairs have been analyzed at the time of this abstract. Age (iTOP: 53 ± 11 ; BCT: 55 ± 14) and tumor size (iTOP: size = 1.7 ± 0.8 cm, DCIS = 53%, pT1 = 60%, pT2 = 40%, invasive multifocal = 33%, DCIS multifocal = 13%; BCT: 2.1 ± 1 cm, DCIS = 53%, pT1 = 47%, pT2 = 40%, invasive multifocal = 13%, DCIS multifocal = 20%), were similar between the two groups. Compared with BCT, iTOP differed insignificantly in bleeding (0% vs. 7%), infection (7% vs. 13%), seroma puncture > 30 d (20% vs. 7%) and to more extend in wound necrosis (0% vs. 13%). Invasive surgery due to postoperative morbidity was similar in both groups (13% vs. 13%) and oncological based reoperation was reduced after iTOP when compared with BCT (2.OP R1 = 0% vs. 7%; 2.OP Mastectomy = 0% vs. 7%). Long term follow up VAS score did not differ between the two groups (iTOP: VAS = 2.3 ± 2.4 vs. BCT: VAS = 2.1 ± 2.9). Objective symmetry analyzes have been shown to be improved after iTOP (BSI = 3.8 ± 2.1) compared with BCT (BSI = 5.0 ± 2.1). Also quality of life seems to be improved in patients treated with iTOP. Generally patients are happier with their appearance (iTOP: 87% vs. BCT: 60%) and the cosmetic result (iTOP: grade = 1.5 ± 1.0 vs. BCT: grade = 2 ± 1.1) with similar breast sensitivity (iTOP: 53% vs. BCT: 47%).

Conclusion: This small study suggests that oncoplastic surgery improves objective cosmetic outcome, quality of life and reduce oncological based second surgery while morbidity may be slightly increased without causing an increased rate of second surgery.

609

Poster

Lobular Histology Shows Tendency of Higher Risk of Involved Margins After First Breast-Conserving Surgery

E. Maksimenko¹, A. Irmejs², G. Trofimovics², A. Abolins³, I. Strumfa³.

¹Paul Stradins University Hospital, Hereditary Cancer Institute, Riga,

Latvia; ²Paul Stradins University Hospital, Breast Unit, Riga, Latvia;

³Paul Stradins University Hospital, Pathology Insitute, Riga, Latvia

Background: Tumor positive surgical margin after breast-conserving treatment is used as a quality indicator in breast cancer healthcare. The aim of the study was to analyze the positive margin cases in our Breast Unit, risk factors for inadequate margin and the impact of positive margin on outcomes after breast-conserving therapy.

Materials and Methods: 107 women with invasive breast cancer (T1–2, N0–2, M0) diagnosed between 2005–2010, who underwent breast-conserving surgery (BCS) as first surgery, were retrospectively selected from the Pauls Stradins Clinical University Hospital Breast Unit Registry. A positive resection margin was defined as a microscopic invasive or in situ tumor at the cutting edge in permanent pathologic reports.

Results: The mean tumor size was 1.65 cm in the positive margin group and 1.68 cm in the other group ($p > 0.893$). 13 of 107 (12.1%) had positive margins at initial resection. Of these patients 4 (30.7%) had involved caudal margin, 2 (15.3%) cranial margin, 2 (15.3%) medial margin, 2 (15.3%) deep margin and 1 (7.6%) lateral margin, there were insufficient data available about the type of margin in 2 cases. 8 (61.5%) had an invasive carcinoma at the margins and in other cases carcinoma in situ was detected. 4 (30.7%) underwent additional surgery-mastectomy, to achieve negative margins. Postoperative radiation was performed for 12 (92.3%) patients. 7 (53.8%) received adjuvant chemotherapy. Patients with inadequate margins