

**Results:** SLNs were successfully visualized in all patients (detection rate 100%). The mean number of fluorescence SLN and radioisotope SLN were 2 and 1.9. Ten patients were found to have lymph node metastasis pathologically. All of them were recognized by the fluorescent method (Sensitivity 100%). There were 4 SLN identified by the ICG fluorescence method that were not detected by the RI method. All pathologically negative. There were not SLN detected by the RI method not identified by the ICG fluorescent method.

**Conclusions:** Our preliminary data show that ICG fluorescence imaging method allowed transcutaneous imaging of lymphatic vessels and SLN detection in a feasible way with acceptable sensitivity comparable to the RI method. In order to validate this technique, at the European Institute of Oncology, we have started an equivalence comparative study that compares the RI detection method with the ICG fluorescence imaging detection method.

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Poster

### Nipple Sparing Mastectomy – Sant'Andrea Hospital Experience

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**Background:** Despite in the last 20 years, with the introduction of conservative techniques, breast surgery has become less mutilating, mastectomy is indicated in approximately 30% of cases. It is indicated not only for large invasive carcinoma but also for multicentric tumors and intraductal carcinoma. The loss of the nipple is experienced like a mutilation.

Can we preserve the NAC?

**Materials and Methods:** From December 2004 to September 2011 we performed 103 nipple sparing mastectomy (NSM) with immediate breast reconstruction.

Selection criteria included women with preoperative diagnosis of breast cancer, tumour at least 1 cm from the NAC without bloody discharge and NAC retraction.

NSM was performed through inframammary fold incision. In few cases we used skin incision above the tumour or periareolar incision.

**Histological Results:** invasive carcinoma in 70 cases, intraductal carcinoma in 21 cases, malignant phyllodes tumor in 2 cases, negative for carcinoma (prophylactic mastectomy) in 10 cases.

We removed the nipple in 8 cases because the histological examination of the retroareolar tissue was positive.

Local recurrences: 2 (1.9%).

No recurrences were observed in the NAC.

Total necrosis of the nipple: 1/103 patients (0.9%).

Partial necrosis: 6/103 patients (5.8%).

Local infection: 1 (0.9%).

**Conclusions:** In several retrospective studies the involvement of the nipple ranges from 0 to 58%, some of these case studies relate to old cases with large tumors. The use of these techniques has had a positive impact on psychology and quality of life of patients with breast cancer but longer follow-up is needed.

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Poster

### Effectiveness of a New Ultrasonic Device in the Axillary Dissection

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**Background:** With the introduction of Biopsy of Sentinel Lymph Node (SNLB), cases of axillary dissection have become generally more technically complex than before.

In these cases the e ultrasonic device is very useful. The aim of this study is to estimate the effectiveness of the new ultrasonic device in the reduction of seroma, haematic loss and time of surgery.

**Materials and Methods:** Since March 2008 to April 2011 we enrolled in our study 200 patients with breast cancer requiring an axillary dissection (positive Lymph-nodes at the beginning or after sentinel-node biopsy).

We randomized the patients in two arms (A and B).

A: 105 axillary dissection using ultrasonic device

B: 95 axillary dissection using usual technique.

We recorded the following data of the patients enrolled: age weight, height BMI, pre and post operative value of hemoglobin.

A closed suction drain was placed; it was removed in the second or in the third postoperative day.

Drain volume was daily recorded. We analyzed data from a subgroup (140) of patients underwent axillary dissection without breast reconstruction (A82, B58).

**Results:** The median age of the sample was 56 (range 33–89). The BMI calculated was 20.06 (range 19.53–42.97). We had 9/82 (10.9%) seroma in the A group and 7/58 (12.3%) in the B group. Clinical seroma was treated

by needle aspiration and medication with steroid. We recorded reduction of bleeding and of time of surgery in the A group. We calculated the difference of value of pre and post operative Hemoglobin (Pre-post op HB0 and time of surgery in a subgroup. We obtained the following data:

A arm (82 pt): 1.01 Pre-post op HB

B arm (58 pt): 1.46 Pre-post op HB

**Conclusions:** The results are encouraging. This new ultrasonic device is ergonomic, comfortable. It allows to dissect, coagulate, cut and it reduces damage of vital structures. It's very useful and safe in patients with pacemaker where electrosurgery can not be used.

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### National Audit of Breast Cancer Specimen Orientation Markers

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Accurate orientation of breast wide local excision specimens is vital if re-excision of positive margins is required. In the UK, national health breast screening programme (NHSBSP), clearly recommend that breast screening units have a protocol for marking specimens to aid pathologists with specimen orientation.

A postal questionnaire was sent to the lead breast pathologist of all breast units identified in England. Questions addressed the method and protocol of orientation. Do such protocols vary within units? What is the frequency of need to contact the operating surgeon for clarity, and whether pathologists would prefer a national, standardised protocol?

Of units orientating specimens with sutures (n=88), the most commonly used method was short length superior, medium length medial and long length lateral by 52% units. Of units orientating specimens with clips (n=22), the most common form of orientation was, one clip superior, two lateral, three inferior and 4 medial, 27%.

Pathologists in 47% units are unclear whether there is a protocol for surgical excision such as 'all tissue from skin to pectoral fascia.' Four (3%) pathologists report the need to contact surgeons for clarification of specimen orientation more frequently than 'rarely'.

Three pathologists highlighted the risk of specimen mis-orientation with similar techniques (eg suture / clip) but different protocols (eg short superior versus short superficial), particularly when considering rotating surgical and pathology trainees or locums, who may not know or follow local protocols.

There was a clear wish by nearly half of all responding pathologists to have a nationally standardised system for specimen marking.

We suggest that specimen orientation protocol should form part of NHSBSP guidelines, with sutures orientated: short length superior, medium length medial and long length lateral and clips orientated: one clip superior, two lateral, three inferior and four medial {the most commonly used methods}. However it should be acknowledged that units can adopt their own system if preferred.

We suggest that all breast surgery units should have specimen marking protocols clearly visible in theatres where breast surgery is performed. There should be increased awareness of specimen orientation protocols amongst trainees and locums, as these surgeons are likely to be at increased risk of breaking protocol.

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### Results and Complications of Autologous Latissimus Dorsi Flap Breast Reconstruction

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**Background:** Use of an autologous latissimus dorsi (LD) flap in breast reconstruction accounts for a flexible and natural look of reconstructed breast and has maintained a strong popularity because of its ease of harvest, reliability, and ability to provide additional prosthetic coverage. Different complications (hematoma, seroma, flap necrosis, infection, hypertrophic scarring, and postoperative back pain) linked to this type of breast reconstruction. The aim of this study was to evaluate the complications and aesthetic outcome of (LD) flap breast reconstruction after breast cancer surgery.

**Materials and Methods:** From January 2009 till January 2011, 40 patients underwent breast reconstruction using (LD) flap with a follow-up period ranged from 6 to 18 months. Patients with small to medium sized breasts underwent complete reconstruction by extended (LD) flap after mastectomy either subcutaneous or skin sparing mastectomy while patients with large pendulous breast underwent Augmentation by (LD) miniflap after conservative surgery by wide local excision (WLE) with safety margin. All patients gave their informed consent for the procedure and were aware of the potential complications and the possibility of secondary procedures.

**Results:** The ages of the patients in our study ranged from 25 to 65 years old. 28 (70%) patients underwent (WLE) and reconstruction with