

while ensuring rigorous oncological safeness and low morbidity rate. Here is reported our 1 year experience.

**Materials and Methods:** *Patients' selection:* Minimally invasive approach was prospectively offered to women candidate to nipple sparing mastectomy, both for breast cancer (BC) and risk reduction surgery (RRS).

*Surgical technique:* A 3–4 cm skin incision in axilla was used for all surgical procedures. Firstly, sentinel lymph node biopsy and/or axillary dissection were performed if indicated and breast tail was prepared under direct vision. Then the whole mammary gland was dissected under endoscopic assistance using ultrasonic or radiofrequency scalpel. The superficial skin flap was created through 2 different techniques: (a) Gasless technique: a retractor with the endoscope inside pulled up the skin; (b) Breast endoscopic single site (BESS) technique: the working space was created by a single-port device with injection of CO<sub>2</sub>. The nipple-areola complex was accurately hydrodissected and cored with cold scissors and the retroareolar tissue marked for pathologic exam. Dissection of the breast gland from the deep fascial plane allowed to complete the mastectomy and to extract the gland from the axillary scar. Immediate reconstruction was performed by video-assisted subpectoral pocket creation and trans-axillary positioning of an anatomical permanent prosthesis.

**Results:** At the Breast Unit of Fondazione IRCCS Policlinico San Matteo in Pavia, Italy, from October 2010 to October 2011, 26 patients (45.6±7.3 years) underwent 30 V-NSM. Indications were: 21 BC and 9 RRS. In oncological patients 17 sentinel lymph node biopsies and 6 full axillary dissections were performed at the same time. The new V-NSM technique was feasible in all 30 cases. No nipple-areola complex was removed either for close/positive margin or for postoperative necrosis. Reconstruction was made with medium size 243±58 cc implants obtaining excellent/good symmetry. No early major complications developed.

**Conclusions:** Minimally invasive V-NSM is feasible and promises to become a good option in selected patients, if surgical and oncological safeness of this series will be confirmed by more extensive experience and appropriate follow-up.

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#### Neither Ductal Nor Lobular Invasive Breast Cancer and Sentinel Node

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Sentinel node biopsy is the gold standard technique for staging the axilla in early stage breast carcinoma.

Invasive breast cancer with special histological features comprises around 10% all breast cancers detected, and comprises a heterogeneous group of breast malignancies, with different prognosis and outcome.

The purpose of this study was to examine the accuracy and feasibility of sentinel node biopsy according these unusual subtypes of breast carcinoma.

**Methods:** From January 1997 to July 2008 all patients in 6 affiliated hospitals having early breast cancer, and clinically negative axilla, underwent sentinel node biopsy (SLNB) (n=2253). Patient data were entered in the multicenter data base.

For lymphatic mapping, all patient received an intrasclerous dose of nanocolloid Tc<sup>99m</sup> (dose: 4mCi in 0.4 ml. saline), at least two hours before surgical procedure, by the same Nuclear team.

**Results:** For the whole series, detection rate was 95% (no migration in 123 patients), and positive sentinel node prevalence was of 22%.

Of 2253 patients in our data base, pathology reported in 144 cases, neither lobular nor ductal carcinoma, this is a 15.64% of the whole series.

Migration of nanocolloid was unsuccessful in 8 patients, so diagnosis accuracy rate has been of 94.5%.

Positive sentinel node prevalence was 7.3%.

|                         | N          | No migration | SN +       | CAD+/CAD |
|-------------------------|------------|--------------|------------|----------|
| Invasive apocrine       | 2 (1.4%)   | 0            | 0          | –        |
| Adenoid cystic          | 5 (3.5%)   | 0            | 0          | –        |
| Colloid                 | 34 (14%)   | 4 (2.7%)     | 3 (8.8%)   | 3/7      |
| Medullary               | 20 (13.9%) | 1 (1.4%)     | 1 (5%)     | 1/2      |
| Invasive Micropapillary | 5 (3.5%)   | 0            | 1 (20%)    | 1/1      |
| Papillary               | 19 (13.2%) | 0            | 0          | –        |
| Cribiform               | 8 (5.6%)   | 0            | 1 (12.5%)  | 1/1      |
| Tubular                 | 41 (28.5%) | 2 (1.4%)     | 4 (9.7%)   | 4/6      |
| Neuroendocrine          | 5 (3.5%)   | 0            | 0          | –        |
| Metaplastic             | 5 (3.5%)   | 1 (1.4%)     | 0          | 0/1      |
| TOTAL                   | 144        | 8 (5.5%)     | 10 (7.35%) |          |

All patients with positive sentinel node (metastasis or micrometastasis) or no migration during the lymphoscintigraphy underwent complete axillary dissection (CAD).

**Conclusions:** Sentinel node biopsy is also accurate and feasible in special histological subtypes of breast carcinoma.

Diagnosis efficacy and positive sentinel node prevalence in these tumours is not distinctive from ductal either lobular breast carcinoma.

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#### Long-term Results of Breast Conservation Treatment Without Axillary Lymph Node Dissection for Clinical T1/2N0M0 Breast Cancer – Comparison with Breast Conservation Treatment with Axillary Lymph Node Dissection

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**Background:** The number of pathological metastases of axillary lymph node (ALN) dissected during surgery is the most reliable prognostic factor, and the key indicator in determining the indication of the post surgical treatment. However, complications such as seroma, elevation disturbance, paresthesia, and edema of the upper arm are associated with a high incidence of axillary lymph node dissection (ALND). The aim of this study is to examine the effectiveness of breast conservation treatment (BCT) without ALND for clinical T1/T2N0M0 breast cancer.

**Materials and Methods:** We enrolled 212 breast cancer patients diagnosed clinically T1/T2N0M0 between July 1989 and January 2004. Patient age ranged from 21 to 84 years (median 49). Follow-up phase is from 1 year 6 months to 22 years 0 months (median 14 years 3 months). We provided BCT without ALND for 106 patients who agreed to receive this treatment and BCT with ALND for others. Criteria of negative ALN metastasis were that minor axis of lymph node was less than 5 mm on CT images and fat tissue in the hilum of ALN did not disappear on ultrasound images. In the case that hormone receptor expression was positive or unknown, nonsteroidal antiestrogen was administered for 5 years. In the case of T1c or T2 under 70 years old, neoadjuvant and/or adjuvant anthracycline-based chemotherapies were administered. After surgery, patients without ALND received tangential irradiation at the region of both breast and axilla, and patients with ALND received only at the region of breast.

**Results:** Ninety-one patients were pathological negative ALN metastasis among 106 patients who were performed surgery with ALND (true-negative rate was 85.8%). However, there were no patients with more than 4 ALNs metastases among them. Ten years overall survival was 95.5% and 96.9% in the case of BCT without ALND and with ALND, respectively, and there was no significant difference between two cases. Ten years disease-specific overall survival was 97.7% and 98.0% in the case of BCT without ALND and with ALND, respectively, and there was also no significant difference between two cases. Ten years disease free survival was 90.4% and 89.4% in the case of BCT without ALND and with ALND, respectively, and there was also no significant difference between two cases.

**Conclusions:** These results indicate that ALND is omissible in the case of BCT for clinical T1/T2N0M0 breast cancer by a combination of hormone therapy, neoadjuvant/adjuvant chemotherapy, and irradiation.

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#### Intraoperative Injection of Subareolar Radioisotope Results in Predictable Identification of Sentinel Lymph Nodes in Breast Cancer

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**Objective:** Our objective is to evaluate intra operative subareolar injection of technetium-99m (Tc99), after induction of anaesthesia, is safe, effective and pain free for identification of sentinel lymph node in breast cancer patients.

**Background:** Preoperative injection of Tc99 is routinely performed before sentinel lymph node biopsy (SLNB) for breast cancer. Blue dye is often used to help guide and confirm the localization. This method is limited because of painful injections and we hypothesized that giving the radioisotope after the induction of anaesthesia is practical for the identification of sentinel lymph node in breast cancer and avoid the significant impact of pain. Current standard of practice is to inject the radioisotope prior to the anaesthetic.

**Methods:** This is a single institution study. All patients with operable breast cancer that were eligible for a SLNB radioisotope injection after the induction of anaesthesia from November 2011 were included. After induction and before sterile preparation of the operative field 0.2 ml of Tc-99 was administered by a subareolar injection. Site and type of injection, injection time, incision time, and identification time of sentinel node along with other factors for the purposes of the study were recorded. Data comparing injection of Tc-99 preoperative and intraoperative are being analysed.