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Conclusions: Our study suggests that TOR treatment does not increase intracellular concentrations of triglyceride in the presence of oleic acid, although TAM treatment increases the concentrations of triglyceride. Therefore, TOR may be a safer treatment in patients with unstable triglyceride levels or a history of hypertriglyceridemia.

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12:30-14:30

POSTER SESSION

## Surgical management (including reconstructive surgery)

512 Poster

Perspective on breast and axilla preservation after introduction of targeted intraoperative radiotherapy and sentinel node biopsy for the treatment of patients with early breast carcinoma

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**Background:** The purpose of the study is: 1) to analyse early results of the breast conserving treatment (BCT) in patients with breast carcinoma using both intraoperative radiotherpy (IORT) and sentinel node biopsy (SNB) simultaneously; and 2) to estimate breast and axillary lymph nodes preservation with this approach.

Material and Methods: The treatment protocol was approved by Ethical Committee. The BCT using combined SNB, wide local excision (WLE) and IORT was performed in 77 patients who signed the informed consent. Patients with primary tumour <2 cm and clinically negative axillary lymph nodes were eligible. The SNB was done using isotope-dye technique with preoperative lymphoscintigraphy. The INTRABEAM® PRS 500 system (Carl Zeiss, Oberkochen, G) was used for irradiation of the tumour bed with the dose of 20 Gy (boost; energy 18 keV). After completion of the adjuvant treatment, whole breast external beam irradiation was performed with a total dose of 50 Gy, omitting the tumour bed. Objective computerized aesthetic effect assessment was done using BCCT.core® software (University of Porto, PT). Follow-up time ranged from 1 to 24 months (mean 11 months).

Results: Minor early postoperative complications (reddening of the skin wound 2; seroma 3) did not prolong hospitalization. In 10 patients (13%), surgical specimen pathology revealed positive margin. Re-excision of the margins was performed in 8 patients. In one of these patients mastectomy was necessary because neoplastic cells in re-excison specimen. In 16 (21%) patients (selective) lymphadenectomy was performed following positive SNB. In one patient both positive SNB and positive margins necessitated mastectomy; whereas in another patient after selective lymphadenectomy, mastectomy was necessary because of margins' infiltration by comedo type carcinoma. Altogether breast and axillary lymph node preservation was possible in 59 (77%) of patients. One patient has fibrosis of the treated breast quadrant. In patients after breast conservation who reached 1 year follow-up, the BCCT.core® general aesthetic score was excellent in 50%, good in 42%, and fair in 8% of patients. There was neither poor aesthetic outcome, nor local recurrence.

Conclusions: The combination of SNB, WLE and IORT is a safe surgical procedure leading both to breast and axillary lymph nodes preservation with improved patients' satisfaction by excellent or good aesthetic effect and shortening the time of treatment in majority of patients.

## 513 Poster Multidisciplinary quality management of breast cancer surgery

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Surgical therapy of breast cancer (BC) as a one-step-procedure is important for oncological results, patients' satisfaction and cost effectiveness of breast units. Therefore, the number of surgical procedures to reach complete excision of the lesion means an indicator of quality.

**Aim:** To investigate the impact of multidisciplinary planning (MDP) and multidisciplinary perioperative quality management (MDQM) on the rate of secondary surgery in BC patients.

Methods: From January 2003 to December 2007 645 patients with primary BC were treated in our Breast Unit. During the whole period under review minimal microscopically tumour-free margins to the resection lines (RLs) laid down in the multidisciplinary therapy protocol were 5 mm for invasive cancer (IC) and 10 mm for pure DCIS concerning all margins except to the always subcutaneous located ventral RL and the dorsal RL consisting of the pectoralis fascia. In case of margins involved by invasive cancer or DCIS re-excision or mastectomy was advised. In October 2004 additionally first MDP of surgery, and secondly MDQM were introduced. MDP is done by a nominated team of surgeons, radiologists and pathologists. To reach the targeted margins at final histopathology the size of macroscopic margins of segmental resections around the mass or microcalcification area in imaging is planned depending on the nuclear grade of the DCIS component: 10 mm macroscopic margins are planned for IC with or without high grade DCIS as for pure high grade DCIS. 20 mm resection margins are planned for intermediate and low grade DCIS with or without IC. MDQM is done intraoperatively by macroscopic measuring of margins by the pathologist or in case of microcalcifications by the radiologist. If macroscopically planned margins could not be reached a re-resection within the same operation is done.

We compared the rate of patients with more than one operation needed to reach the definite surgical therapy as the rate of breast conserving therapy (BCT) for two periods before and after implementing MDP and MDQM (2003–2004 171 patients vs. 2005–2007 474 patients with similar distribution of tumour sizes.

**Results:** The rate of patients with two (or more) operations needed to get the targeted minimal margins was 35.1% before, and 19.0% after implementing MDP and MDQM, whereas the BCT rate did not differ significantly (54.1% vs. 57.6%).

Conclusions: By MDP and MDQM the multidisciplinary breast team can spare secondary surgery without compromising tumour-free margins or the rate of BCT in patients with primary BC.

## 514 Poster Breast cancer – analysis of tumor size at diagnosis in 3,050 consecutive surgical patients

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Background: Breast cancer is the third most frequent cancer in the world and the most common malignancy of female. In the past the majority of patients was diagnosed when the disease was in an advanced stage. Analysing different series of patients affected by breast cancer reported in literature appears that in these last recent years there is worldwide an increased number of patients with stage I disease, suggesting an increase in the early detection of breast cancer as a result of improvement of the diagnostic techniques and of the extensive screening programs.

Material and Methods: The medical records and the pathological reports of 3,050 consecutive patients undergone breast resection between 1992 and 2005, examined at the Anatomy-Pathologic Service of the University of Insubria in Varese, were reviewed and registered in a computerized data-base.

The aim was to compare and analyze pathologic data.

For each patient enrolled were registered: gender, age at diagnosis, treatment, type of surgical resection, sentinel lymphnode biopsy (LNS) (with the total number of lymphnodes for each axillary level), histological type, pathological staging, grading, tumoral size and hormonal receptor status.

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Results: The analysis of tumour size demonstrated a progressive decrease since 1992 to 2005.

During the study period, the tumors lower than 1 cm increased from 13.4% to 15.4%; the tumors diagnosed at Stage I increased from 44% to 57%. The most frequent histological type was ductal carcinoma; the CDIS increased from 4% to 6%; the percentage of lymphadenectomies decreased from 72% to 52%.

We observed a progressive decrease of mastectomy with a consequent increase of breast conservative treatment. Similarly, after the introduction of LNS biopsy there was a decrease of N-lymphadenectomies.

**Conclusions:** Our longitudinal study on 3,050 consecutive surgical patients confirmed the progressive reduction of tumor size at diagnosis in these last decades.

Perioperative factors that correlated with the decreased tumour size over time were screening and improvement of diagnostic techniques; the