Poster presentations (Wed, 23 Sep, 14:00–17:00)
Breast cancer – Clinical advanced disease

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Nipple-sparing mastectomy with immediateimplant reconstruction: analysis of early surgical complications in 205 patients

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Background: Breast reconstruction with silicone prosthesis following nipple-sparing mastectomy (NSM) has been shown to have a salutary effect on the overall psychological well-being of women being treated for breast cancer and at the same time does not threat the oncological safety. The purpose of this study was to evaluate the incidence of early local complications after immediate breast reconstruction with a subpectorally placed silicone prosthesis following NSM.
Materials: Prospective study was performed on a consecutive series of 214 breast reconstructions in 205 patients over a five-year period. All complications during the six weeks after surgery were recorded. 42 prostheses were implanted after neoadjuvant chemotherapy and in all other cases surgery was the primary treatment for cancer.
Results: The overall complication rate was 16.4% (35) and included: major skin flap necrosis (4.2%, 9 procedures), minor skin necrosis (3.3%, 7), major infection (2.4%, 5), minor infection (3.3%, 7), prolonged seroma formation (2.8%, 6), haematoma (0.9%, 2) and epidermolysis (0.9%, 2). In 5.6% (12) reconstruction procedures explantation of prosthesis was done. Neoadjuvant chemotherapy was not associated with higher rate of complications.
Conclusion: NSM offers good aesthetic result and improves quality of life with acceptable morbidity rate in the hand of experienced oncolplastic surgeon and therefore should be offered as treatment option to every women requiring mastectomy. Neoadjuvant chemotherapy is not a risk factor for early postoperative complications.

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Prognostic importance the extracapsular extension of axillary lymph node metastases in HER-2 receptor positive and negative breast cancers

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Background: Amplification of the protein product of the HER-2/neu oncogene in primary breast cancer specimens is associated with an adverse prognosis. Studies on the association of HER-2/neu with the axillary lymph node metastasis are controversial.
Methods: From January 2000 to January 2009, 519 breast cancer patients operated in General hospital "Sveti Vracevi" in Bijeljina. We selected 260 (50.1%) patients with breast cancer who had metastases to axillary lymph nodes.
Results: Extracapsular extension **(**ECM) was found in 109 (41.9%). The patients were identified and divided into two groups: patients in the HER-2 positive group (40 patients) and HER-2 negative group (69 patients). ECM was seen in 11 of 18 (61.1%) patients in the HER-2 positive group compared with 6 of 20 (30%) in the HER-2 negative group (P = 0.052). Total number of lymph nodes showing ECM were also significantly more in the HER-2 positive group (49 of 82, 59.7%) *vs.* (13 of 61, 21.66%) in the HER-2 negative group (P < 0.001). With a median follow-up of 96 months factors with independent prognostic value for disease-free survival by multivariate analysis included HER-2/neu overexpression with extracapsular extension ($P < 0.005$), pN category ($P < 0.01$), presence of lymphovascular invasion (LVI; $P < 0.005$), and ECM ($P < 0.001$). An independent negative prognostic effect on overall survival was observed for HER-2/neu overexpression with extracapsular extension ($P < 0.05$), pN category ($P < 0.05$), and presence of LVI ($P < 0.005$) and ECM ($P < 0.001$).
Conclusions: In patients whose tumors expressed HER-2/neu who had positive lymph nodes and extracapsular extension prognosis was significantly worse compared with those who were HER-2/neu negative and lymph node positive with extracapsular extension. These findings have led to the conclusion that HER-2/neu overexpression is associated with a more aggressive subtype of cancer.

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Sternal/para-sternal resection for parasternal local recurrence in breast cancer

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Background: Locoregional recurrence occurs in a significant number of patients with breast cancer. This can result in substantial morbidity and mortality. Chest wall resection is well-documented for palliation and local control in chest wall relapse; an extension of this surgery is parasternal or sternal resection.
Methods: A retrospective review of medical records of eighteen women who underwent sternal or parasternal resection with curative intent between 1998 and 2007 was undertaken.
Results: 12 patients had total sternal resection, five patients had sub-total sternal resection and one patient had resection of tumour and ribs. 17 patients required the insertion of a composite Marlex® methyl-methacrylate chest wall prosthesis, followed by soft tissue reconstruction with a pectoralis major or latissimus dorsi flap, in the majority of cases. In-hospital and 30-day mortality was 0%. One and two-year overall survival was 87% and 80% respectively. The median recurrence free survival was 18 months (95% CI 4–31 months). There was local and distant recurrence in one patient (5%), local recurrence in two patients (11%) and distant recurrence in eight patients (44%), with 15 out of 18 patients (77%) remaining free from local recurrence at 5 years.
Conclusions: En bloc sternal resection for parasternal recurrence in breast cancer involves extensive surgery but in our experience can be performed with very low mortality and morbidity. In selected patients it provides good long term local control, relief of pain and improved cosmesis.

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3D-CT lymphography guides the sentinel node biopsy after preoperative systemic chemotherapy

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Background: Preoperative systemic chemotherapy (PSC) can shrink the tumor size and decrease metastasis in the axillary node (AN) However, the sentinel node (SN) biopsy cannot be applied for axillary preservation after PSC, because of many false negative studies. Three-dimensional computed tomographic (3D-CT) lymphography (LG) can show the precise lymphatic pathway in axilla, and will make it better to perform the accurate SN biopsy after PSC.
Materials and Methods: 3D-CT LG was performed on 30 patients with SN biopsy after PSC. AN metastasis before PSC was diagnosed by the fine needle aspiration biopsy under ultrasound-guide. PSC was performed as 4 cycles of 5-fluorouracil 500 mg/m^2/3w + epirubicin 100 mg/m^2/3w + cyclophosphamide 500 mg/m^2/3w and 12 cycles of weekly paclitaxel 90 mg/m^2/w. 3D-CT LG was performed as follows: 2 ml of iopamidol 300 mg/dl was injected intradermally over the tumor and near the areola. A CT image with a 3-mm slice thickness was taken 1 minute for SN and 5 minutes after injection for AN, using a 16-channel multidetector-row helical 3D-CT scanner. Their location was marked on the skin surface with an oil-painting pen using a laser pointer of CT the day before the surgery. SN biopsy and AN dissection (levels I and II) were performed by dye-staining method endoscopically.
Results: The patient's age was 54.4 years old (26–82). The tumor size was 4.0 cm (1–10). The therapeutic effects of PSC were Grade 1a: 7, G1b: 12, G2: 7, and G3: 4, respectively. Seven patients underwent mastectomy. 23 patients underwent the endoscopic breast conserving surgery. Before PSC, the axillary status was N1 on 11, and N2 on 19 patients. After PSC, SN metastasis was observed positive in 11 patients and negative in 19 patients. Only SN metastasis was in 6 patients (54.5%). One patient had the false negative study (8.3%), but she had metastasis only in level III axillary node group. 3D-CT LG showed enhanced SN in 25 patients. The typical metastatic patterns were goblet-like appearance in 5, club-stick-like in 3, and partial enhancement in 5 patients. The SN without enhancement in the other 5 can be identified by the detour of enhanced lymph ducts just in front of it. The micrometastasis was observed in 6 patients with totally enhanced SN.
Conclusions: 3D-CT LG will predict most of metastases in SN, and can help more precise SN biopsy, and become an indicator of axillary preservation. However, its indication should be restricted, because the patient with many AN metastases may have false negative study.