812 POSTER

Can scintimammography predict axillary involvement in breast cancer?

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Introduction: Axillary dissection is a standard procedure which provides breast cancer staging and prognostic information, and part of therapy. However, as earlier disease detection occurs, fewer patients will have nodal involvement. Identification of patients who are node negative is important to reduce morbidity, prevent lymphoedema of the arm, and reduce costs. A variety of imaging techniques including mammography, ultrasound scanning with colour Doppler, and liposomal scintigraphy have been tried with poor specificity. A new scintigraphic technique using Tc-99m Sestamibi has been used to identify axillary nodal involvement.

Patients and Methods: Scintimammography was carried out in 93 patients who subsequently underwent a level II axillary dissection. The standard Khalkhali-Diggles regimen was used injecting 740 MBq of Tc-99m Sestamibi into a foot vein. Imaging started after 5 minutes and the axillae were imaged both anteriorly and laterally.

Results: Scintimammography correctly predicted the lymph nodal status in 64.5% of patients (37 true positive, 23 true negative, 10 false positives, 23 false negative). While large nodal masses showed uptake in all patients, small lesions were not imaged.

Comment: Our results show that large nodal masses may be imaged using Tc-99m Sestamibi scintimammography. However, since it is unlikely that an imaging modality will show up a small tumour, scintimammography in its current form is unlikely to be clinically useful in detecting a small nodal deposit. Therefore, whilst scintimammography has a complementary place in the diagnosis and management of breast cancer, sentinel node biopsy is recommended to confirm nodal involvement in the axillae. Assessment of the sentinel node will save a large number of women unnecessary surgery.

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Locally advanced breast cancer (LABC): Neoadjuvant chemotherapy with sequential doxorubicine (DOX) and docetaxel (DOC)

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Introduction: DOX and DOC are considered as the best single agents in advanced breast cancer with response rates ranging in first line from 38–52% and from 50–65% respectively, and in second line from 15–29% and 40–55%. Both compounds are devoid of total cross-resistance. We present here the preliminary results of monotherapy with DOX followed by single agent DOC, given as neoadjuvant regimen in 20 patients with LABC.

Patients and Methods: Between 06/97 and 11/98, 20 patients (4 stages IIIa; 16 stages IIIb) were included in the trial and received first 2 cycles of DOX 75 mg/m^2 (q3w), followed by 2 cycles DOC 100 mg/m^2 (1 hour infusion, q3w). Clinical, biochemical and radiological response was evaluated after 2 and 4 cycles. Thereafter, loco-regional treatment was administered and further systemic treatment was planned according to the observed response.

Results: By clinical evaluation according to the UICC criteria, 16 pts had objective regression (5 CR, 11 PR), 4 had stabilization. Six pts who showed no response after 2× DOX, responded clearly after 2× DOC. There were no serious complications. Dose reduction during 2nd course of DOC (75%) was only necessary in 2 pts because of mucositis (1) and myalgia (1). After completion of neoadjuvant chemotherapy, local treatment consisted of exclusive radiation therapy (RT) in 2 pts and surgery followed by RT in 18 pts. Pathological examination in the latter showed disappearance of invasive tumor at the primary site in 5 pts (3 had persisting DCIS). Subsequent systemic therapy was adapted to the initial ER status (tamoxifen for ER or PR+), and to the pathological axillary nodal status (adjuvant chemotherapy if N+).

Conclusions: We conclude that a high response rate can be achieved within 12 weeks with the proposed regimen, which proved to be very well tolerated. This regimen is worth being compared to others for inducing response in LABC.

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Intraoperative radiotherapy (IORT) in breast cancer – A high quality boost in breast conserving therapy

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Purpose: After breast conserving surgery and radiotherapy, the majority of local recurrences occurs in the vicinity of the former primary tumor site. The geographic miss of the tumor bed is a well documented phenomen in boost irradiation, demanding adequate techniques of high quality boost set-ups.

Methods: From 10/98 until 2/99, conservative surgery was performed in 18 patients with stage I or II breast cancer in a dedicated IORT facility. After tumorectomy, the tissue surrounding the excision hole was temporarily approximated by sutures for IORT. Depth dose prescription was done by intraoperative sonography of the tumor bed. A single fractional dose of 9 Gy was applied to the 90% reference isodose with electron energies ranging from 4–12 MeV (Philips SL 18). After wound healing, patients presenting with ductal carcinoma received 51Gy EBRT of the whole breast, patients with lobular histology were treated up to 56 Gy. No additional boosting is performed.

Results: In a dedicated unit, the use of IORT prolongues the surgical procedure by only 15–20 minutes, while shortening the duration of the EBRT by 1–2 weeks. Direct visualisation of the tumor bed guarantees the highly accurate delivery of boost doses. There were no early complications associated with the use of IORT. Compared to conventional boost strategies, integral treated volumes are low.

Conclusion: In Salzburg, IORT of the tumor bed is integrated into breast conserving cancer treatment as standard procedure in a prospective study.

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Breast cancer and pregnancy: The Gustave Roussy Institute experience

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Purpose: We conducted a retrospective study of patients whose breast cancer was diagnosed during pregnancy or immediately following delivery

Aims: To investigate how patients were treated and propose a protocol according to the stage and the timing of the pregnancy.

Methods: Patients were treated from 1956 to 1998. Among 57 cases reviewed, 49 were eligible. They were either entirely treated in our institution or referred for advice.

Of the 49 patients, 14 were in the first trimester, 18 in the second, 8 in the third trimester, and 9 cancers were diagnosed after delivery. 24 patients had stage IIIa and B (48%), 18 had inflammatory disease.

Results: From 1956 to 1998, there was a wide variety of treatments with no specific protocol. The prognosis remained quite poor (52% mortality rate).

Conclusion: As the association of breast cancer and pregnancy is becoming more frequent, a real protocol should be initiate with neoadjuvant chemotherapy from the forth month of pregnancy, since it has been demonstrated that such treatment does not induce foetal abnormalities.

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Sentinel node biopsy in breast cancer – The ALMANAC trial

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Aim: The single most important prognostic indicator in the management of breast cancer is the status of the axillary nodes. To enable optimal treatment, all patients with breast cancer undergo an axillary sampling or clearance, with its associated morbidity. The introduction of Sentinel Node Biopsy (SNB) in breast cancer promises to confine an axillary procedure to patients who have a positive SNB.

Methods: We have localised the sentinel node (SN) using a combination of patent blue V and radioisotope. The preoperative injection of nanocoll is followed by lymphoscintigraphy and a hand held probe at surgery is used to locate the SN. At surgery patent blue V dye is injected around the tumour and a blue lymphatic is traced to a blue node. The SN, once localised is