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Proffered paper oral

Prognostic Significance of Axillary Lymph Node Dissection in Breast Cancer Patients with Micrometastases or Isolated Tumor Cells in Sentinel Nodes – a Nationwide Study

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Background: The aim of the present study was to estimate the impact of axillary lymph node dissection (ALND) on the risk of axillary recurrence (AR) and overall survival (OS) in breast cancer patients with micrometastases or isolated tumor cells (ITC) in sentinel nodes.

Materials and Methods: A total number of 2137 patients with micrometastases or ITC in sentinel nodes registered in the Danish Breast Cancer Cooperative Group database diagnosed with sentinel lymph node dissection between 2002 and 2008 were included in the study, of which 256 did not have an ALND. The estimated potential median follow-up was 57 months (range 1–112 months).

A Cox proportional hazard regression model was developed to assess the hazard ratios (HR) for AR and OS in patients with and without ALND.

Results: Patients without ALND were generally older than patients with ALND (table). Almost all patients with micrometastases were expected to receive adjuvant systemic treatment due to high risk factors in contrast to only around 80% of patients with ITC.

	Micrometastases		ITC		Micrometastases or ITC	
	+ ALND	-ALND	+ ALND	-ALND	+ ALND	-ALND
Mean age	58.3	73.6	57.9	67.1	58.2	70.8
Mastectomy	588 (37%)	74 (50%)	125 (41%)	43 (39%)	713 (38%)	117 (46%)
BCS	989 (63%)	73 (50%)	179 (59%)	66 (61%)	1168 (62%)	139 (54%)
Expected systemic adjuvant treatment	1563 (99%)	143 (97%)	243 (80%)	86 (79%)	1806 (96%)	229 (89%)
No. of AR	17 (1.1%)	2(1.4%)	4 (1.3%)	3 (2.8)	21 (1.1%)	5 (2.0%)
5 years OS	91%	83%	93%	83%	91%	83%
Total	1577	147	304	109	1881	256

Treatment, AR and OS are shown in table. The cumulated incidence of AR was only 1.4% after 5 years. For patients with micrometastases the age adjusted HR for AR when ALND was performed compared to patients without ALND was 0.53 (95% CI:0.12–2.46, $P=0.42$), for patients with ITC it was 0.35 (95% CI:0.08–1.58, $P=0.17$) and for the two groups together it was 0.43 (95% CI:0.15–1.27, $P=0.13$). The adjusted HR for OS when ALND was performed compared to patients without ALND was 0.77 (95% CI:0.50–1.19, $P=0.24$) for patients with micrometastases, 0.70 (95% CI:0.38–1.31, $P=0.26$) for patients with ITC and 0.75 (95% CI:0.52–1.07, $P=0.11$) for the two groups together, when adjusting for age, tumor size, histological type, malignancy grade, lymphovascular invasion and hormone receptor status.

Conclusions: In this nation-wide study we found a HR less than 1 for AR and OS in favor of ALND in patients with micrometastases or ITC in sentinel nodes. However, the difference was not significant and the absolute rate of AR was generally low.

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Proffered paper oral

Conservative Surgery With or Without Axillary Clearance in T1N0 Breast Cancer: Ten- Year Results of INT 09/98 Randomised Trial

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Background: Axillary dissection, a standard treatment to accurately identify nodal metastasis in early breast cancer, is associated with considerable morbidity. It has been substituted by sentinel node biopsy with dissection only if the sentinel node is positive. We aimed to determine whether axillary surgery can be omitted in patients with early breast cancer without compromising long-term disease control.

Patients and Methods: From 1998 to 2003, a randomised clinical trial (RCT) on 565 (18–65 years) T1N0 BC patients was carried out. Patients underwent conservative surgery with or without axillary clearance (QU+AD vs. QU). All patients received radiotherapy only to the residual breast. Postoperative chemotherapy (CT) was scheduled as ADM+CMF regimen and was planned on a biological panel on the primary tumor in the QU group, defined as good panel (GP) (ER+, and up to one unfavourable features (G3, Her2+++., Laminin receptor+) without receiving adjuvant chemotherapy (CT), or defined as bad panel (BP)(ER–, or ER+ and more than one unfavourable features) and receiving adjuvant CT. In

QU+AD group, patients with N–, ER+ and GI-II disease (good factor (GF)) did not receive CT, whereas patients with N+ or GIII or ER– disease (bad factor (BF)) received adjuvant CT. The primary end points were overall survival (OS) and disease-free survival (DFS). Overt axillary disease was assessed in QU patients.

Results: Out of the 565 randomised patients, 517 were evaluable: 274 in QU+AD group and 243 in QU group. Mean age was 52 years, mean tumor size was 12.93 mm, with unifocal tumor in 93.42% of cases. In the QUAD +AD arm, the median number of dissected node was 20, and in 193/274 patients (70.5%) the axillary nodes were tumor-free, whereas 81/274 patients (29.5%) developed pathological axillary nodes. In the QU+AD group 131 patients (47.8%) had GF disease and did not receive adjuvant treatment, whereas 143 (52.2%) with BF disease received adjuvant treatment. In the QU group, 157 patients (64.6%) had GP disease and did not receive adjuvant treatment whereas 86 (35.4%) patients had a BP disease and received adjuvant chemotherapy. No significant statistically difference was observed in term of DFS ($p=0.974$) and OS ($p=0.5964$) in the two arms after a median follow-up of 10 years, also when evaluated by the four groups of the series. In the QU group, 21 patients had axillary relapse, 6/86 in BP group (6.98%), and 15/157 in GP group (9.55%) ($p=0.635$). The median time of axillary relapse was significantly different in the two groups (21.4 vs 35.4 in BP and GP groups respectively, $p=0.049$); in BP group, 4/6 pts had distant metastases (66.6%), whereas 3/15 pts only in GP group developed distant metastases ($p=0.050$).

The median follow-up after axillary relapse in GP group was 35 months.

Conclusion: Patients with early breast cancer and clinically negative node did not benefit in terms of breast cancer mortality, DFS and OS from immediate axillary dissection in this randomised controlled trial. The bio-molecular panel applied in this study in QU arm resulted adequate for planning adjuvant treatment.

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15:45–17:15

CLINICAL SCIENCE SYMPOSIUM

Why Does Age Matter?

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Invited

Breast Cancer in the Young

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The incidence of breast cancer in the young is low. Approximately 12% of all breast cancers are diagnosed in women below the age of 40 years. Data on this age group are scarce and treatment recommendations are not different from other breast cancer patients. However, there are issues such as ovarian function, pregnancy, etc. which are special for this age group.

Breast cancer in young women is biological different from those in older women. Data suggest that young women with breast cancer are at higher risk relapse and might need more aggressive therapy. Young women have a higher risk of distant and local recurrences. Nevertheless the indication for breast conserving surgery and radiotherapy is not different from older women. Data suggest a general benefit for postmastectomy radiotherapy. It seems that breast cancer in young women is more sensitive to chemotherapy. Young women (<40 years) treated with anthracycline/taxane containing neoadjuvant chemotherapy have a significantly higher rate of pathological complete remissions than women older than 40 years – overall and in subgroups. This needs to be kept in mind when deciding on (neo)adjuvant chemotherapy. Hormone receptor sensitive breast cancer in young women needs to be treated with endocrine therapy. Tamoxifen +/- ovarian function suppression is still standard of care. Trastuzumab is effective in all age groups. The majority of young women receive chemotherapy. But cytotoxic agents are inducing premature ovarian failure depending on the agents given, the duration of therapy and the woman's age. Women younger than 30 years of age have a very low probability to experience chemotherapy induced ovarian failure. Recent data have shown that the median time to resumption of menstruation in women suffering from chemotherapy induced amenorrhea is about 6.5 months. Young women need to be informed about the issue and methods preserving ovarian function and fertility. But women with chemotherapy induced amenorrhea have a better disease free survival.

There is no doubt that women wishing to have a child after breast cancer can become pregnant without an increased risk of relapse. Women who have been diagnosed with breast cancer during pregnancy should and can be treated during pregnancy as closely as possible to standard therapies for non-pregnant women. Certain aspects of young women with breast cancer need to be taken into account, that's why age matters. For detailed recommendations see also www.ago-online.org