Bre 03

WHAT IS THE MEANING OF THE HISTOLOGICAL WORK UP OF TISSUE REMOVED DURING QUADRANCTOMY OR TUMORECTOMY FOR THE FURTHER MANAGEMENT OF THE BREAST CANCER PATIENT?

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For several years it is known that there is no difference in the rate of survival and distant recurrence for patients treated by segmental resection or by mastectomy. However, it is unsatisfactory that there is an increased occurrence (30 %) of local recurrence at patients without breast irradiation compared with additional irradiated patients (10 %).

During more than 10 years, 100 patients with conservative surgery at the Universitäts-Frauenklinik Erlangen were followed up. Many of these patients have not received radiotherapy. The decision for or against radiotherapy was made on the basis of elaborate histological examinations of the excised tissue, and we were able to classify four risk groups.

Risk I - Tumor clearly limited - excision line certainly within healthy tissue

Risk II - positive biopsy of the other breast (Ca, CIS) - CIS in the surrounding tissue - intramammary metastases in the quadrant next to the primary tumor - lymphangioma in the surrounding tissue - invasive lobular type

Risk III - excision line not certainly within healthy tissue - multicentric tumor focuses in the preparation - extended lymphangiosis - CLIS or CDIS extended to the resection line

Risk IV - excision of tumor certainly not within healthy tissue. Reviewing our cases, we found no local recurrence in group I, as expected, and an increase of the rate of recurrence according to the higher risk groups (III-IV). Furthermore there was no difference between patients with and without additional irradiation within each group. Group III-patients seemed to have the best benefit by irradiation. As results have shown that the probability of local recurrence can be determined fairly certain thereby, we are able to classify our patients in high risk groups (III+IV) needing further treatment, e.g. irradiation or radical mastectomy. Lower risk patients (group I+II) can be saved from further treatment with all its negative consequences.

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Bre 04

TNM-CLASSIFICATION OF BREAST CANCER

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Between 1973 and 1982, 657 patients with primary breast cancer were treated at the First Department of Obstetrics and Gynaecology in Munich. The mean age was 57.8 years. The main symptom was the lump (85.7%), followed by skin changes in 39.4%. Pain and discharge were observed in 20.5% and 6.8%, respectively. The pre- and postoperative T-stage was in 65.3% identical. pTis was found in 6.2% in 50.8%, pT2 in 29.5%, pT3 in 6.8%, pT4 in 5.2% and pTX in 1.4%. The comparison of the pre- and postoperative N-stage showed an agreement in 52.4% of the cases. In 35.3% of the cases tumour metastases were histologically diagnosed in the lymph nodes, even though these were found to be clinically free of cancer. Conversely, 23.0% of those patients with clinically suspicious lymph nodes, presented no histologically observable tumour. A primary metastasized breast cancer was observed in 4.7% of the cases. For the T-stage, the following 5 year survival rates were calculated: pTis 87.9% (with no patient dying of breast cancer); pT1 79.2%; pT2 64.4%; pT3 31.2%; pT4 16.4%. The recurrence rates were for pTis, 0%; pT1 17.4%; pT2, 29.9%; pT3, 57.8% and pT4, 67.6%. For the N-stage, the 5 years survival rates were: N0 86.3%, N1 62.4%, N2 47.2%, N3 18.2%. Patients with negative lymph nodes, presented recurrence rate of 13.7%, patients with 1-3 positive lymph nodes, 18.5%, and patients with more than 4 positive lymph nodes, 54.0%. The 5 year survival rate for M0-stage was 71.7%, and for M1-stage 7.2%.

Our data confirm: 1. The significance of the lump as main symptom in breast cancer. 2. The convenience of the postoperative TNM-stage as compared to the preoperative TNM-stage. 3. The prognostical value of TNM-classification.

Bre 05

IMMUNOCYTOCHEMICAL DETECTION OF TUMOR CELLS IN BONE MARROW IN BREAST CANCER PATIENTS AT TIME OF PRIMARY THERAPY

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Bone marrow aspirates from 25 patients at time of primary breast cancer therapy (stage T1-3, N0-2, M0) were taken from several sites: 2x iliacal crest left and 2x right, 2x sternal (each 6ml). Additionally, biopsies were taken in 12 patients with an myelotomy drill from the iliac crest. All patients were screened for distant metastasis (X-Ray, bonescan). Tumor cells in bone marrow aspirates were detected by an immunocytochemical method as previously described by D.P. DEARNALEY using monoclonal antibodies against EMA (epithelial membrane antigen) and LICR-LON-M8 (kindly provided by Ludwig-Institute, Sutton, England). Myelotomy drill biopsies were morphologically examined. In 7/25 bone marrow aspirates staining of single tumor cells (6-32 cells) could be demonstrated. 2 of the 6 patients were stage I, 4 stage II and 1 stage III disease at time of clinical admission (histologically proven). Staining of tumor cells could clearly be separated from stained plasma cells. In all myelotomy biopsies tumor spread could not be detected. Conclusions about diagnostic and prognostic value and therapeutic consequences cannot be drawn at this time, since follow up of the patients is no longer than 12 months and some patients are still under adjuvant chemotherapy. Whether detection of tumor cells in bone marrow is a sign of micrometastasis or demonstrates a high number of tumor cells in the organism is still under discussion.

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Bre 06

EVIDENCE AGAINST A PARANEOPLASTIC ORIGIN OF PROLACTIN IN HYPERPROLACTINAEMIC BREAST CANCER PATIENTS

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Background: Hyperprolactinaemia in breast cancer pts is associated with tumour load and progressive disease. Since elevated PRL levels return to normal when a remission is achieved in these pts, an ectopic production of prolactin by the tumour would be a possible explanation.

Method: Prolactin stimulation and suppression tests and 24 h hormone profiles were performed on 34 pts with metastatic breast cancer associated with hyperprolactinaemia. In all pts uraemia, surgery or drugs were ruled out as causing the hyperprolactinaemia. Stimulation of the prolactin release was performed with 200 mcg TRH iv by an indwelling catheter. 18 pts were given 10 mg bromocriptine (dopamine agonist) and 16 pts 12 mg metergoline (serotonine antagonist) p.o. to test the suppression of prolactin release by two different pathways. The prolactin levels were measured before and 20 min after TRH stimulation and 7-14 days after begin of bromocriptine or metergoline treatment.

Prolactin was measured by radioimmunoassay (normal range 50 - 500 mIU/l).

Results: The mean basal prolactin level of the pts was 1196 ± 185 mIU/l. A sleep-related surge was observed in all pts. The prolactin release was stimulated by TRH (1785 ± 473 mIU/l) and suppressed by bromocriptine (80 ± 12 mIU/l) or metergoline (249 ± 46 mIU/l) in all pts. After withdrawal of bromocriptine or metergoline treatment, the prolactin levels returned to hyperprolactinaemic values. It is concluded that hyperprolactinaemia in breast cancer pts is not caused by an ectopic production of prolactin in tumour cells.

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