

patients T3N2M0 (70 persons) before and after radical mastectomy and during medicinal treatment. Activity of enzymes in blood serum of healthy women (30 persons) is investigated aged 40–49 years.

Results: It is established, that in blood serum of breast cancer patients T3N2M0 raises activity of TK (3.440.51 nmol/hour/mg, control 3.030.20 nmol/hour/mg) and is reduced activity of TP (34.562.56 nmol/min/mg, control 42.361.25 nmol/min/mg). It is revealed, that activity of TP depends on a degree of a differentiation of a tumour. In bioplate of low differentiation tumours and in blood serum of such patients activity of TP was three times lower than norm. Activity of ADA is reduced in blood serum (5.2 times) and reduced in lymphocytes (3.4 times) in comparison with norm. After operation activity of TK and TP in blood serum practically did not change and activity of ADA has authentically decreased from 7.851.85 to 5.280.73 nmol/min/mg. Simultaneously ADA has raised in lymphocytes from 40.082.14 to 50.035.16 nmol/min/mg.

Conclusions: During chemotherapeutic treatment in patients with high differentiation of tumour in two weeks activity of TK was reduced up to 1.850.67 nmol/hour/mg, TP came nearer to norm (58.88 5.12) nmol/min/mg, ADA did not change. In patients with low differentiation of tumour TK accrued up to 9.161.6 nmol/hour/mg, TP and ADA remained same as before treatment. In this group within 5 years high percent of lethal outcomes that speaks about low efficiency of chemotherapy. Thus, it is revealed that at treatment of breast cancer patients is necessary to take into account differentiation of a tumour and for individual treatment to use activity of TK, TP and ADA as a test of efficiency.

438

POSTER

Fine needle aspiration cytology (FNA) as a predictor of biologic behaviour in adenocarcinoma of the breast

E. Angelidou¹, G. Sotiropoulou³, E. Poulidou³, P. Arapantoni⁴, V. Zolotas⁵, A. Nisiotis¹, E. Politi², H. Koutselini². ¹Third Department of Surgery, Metaxa Memorial Anticancer Hospital, Piraeus, Greece; ²Cytopathology Department, Aretaieio' University Hospital, Athens, Greece; ³Laboratory of Cytology, Metaxa Memorial Anticancer Hospital, Piraeus, Greece; ⁴Laboratory of Pathology, Metaxa Memorial Anticancer Hospital, Piraeus, Greece; ⁵First Department of Surgery, Metaxa Memorial Anticancer Hospital, Piraeus, Greece

Objective: The axillary lymph node status is one of the most important prognostic factors for the survival of patients with breast cancer. In this prospective study we evaluated the nuclear grading of the cancer cells (NG) at the FNA of the primary tumor of breast cancer patients, as well as other clinical and epidemiological parameters preoperatively as predictive factors for the axillary invasion.

Methods: At 224 patients with tumor size until 3cm and negative axilla we applied FNA and we diagnosed cytologically breast adenocarcinoma. In these cytological specimens we studied the NG of the tumor cells and classified it according to the criteria proposed by Dabbs and Silverman as NG1, NG2 and NG3. We also evaluated the age of these patients and the clinical tumor size (determined by palpation, mammogram or ultrasonography). After the modified radical mastectomy or breast-conserving surgery and standard axillary dissection (level I and II) we identified histologically the number of the infiltrated lymph nodes (LN) in every case. The chi-square test and logistic regression analysis were used for p-values.

Results: 29 (12.9%) of our patients had NG 1, 110 (49.1%) NG 2 and 85 (38%) NG 3. Only 4 (13.7%) of the patients with NG1 had axillary LN metastases, compared with 52 (47.2%) of those with NG 2 and 71 (83.5%) of those with NG 3 (p-value: <0.001). 43.3% of the 127 patients with ≤2 cm tumors and 74.2% of those with >2 cm tumors had at least one positive lymph node (p-value: <0.001). By statistical analysis we also proved a positive statistical significant relation (p-value <0.001) between the NG and the number of the infiltrated LN, whereas none was seen between the age of the patients and the number of the infiltrated LN.

Conclusions: FNA is a safe, simple and inexpensive technique for the diagnosis of breast cancer. The preoperative NG-determination in the FNA specimens can probably give an indication for the axillary involvement.

Friday, 19 March 2004

16:00–17:15

PROFFERED PAPERS

Epidemiology and prevention

439

ORAL

Is the presentation of breast cancer different in the elderly?

S.B. Vestey, N.C. Gallegos. *Weston General Hospital, Surgery, Weston-S-Mare, UK*

Background: Anecdotal evidence suggests that elderly breast cancer patients present with less aggressive disease, however there is little published research to confirm this. Our aim was to determine whether presentation with breast cancer in the elderly differs from their younger counterparts.

Methods: Prospective data was collected from consecutive breast cancer referrals to Weston Hospital, which serves a large elderly population, over a 5 yr period (1998–2003). Screen detected cancers were excluded from analysis. 529 patients were identified and defined as premenopausal (<50 yrs, n=102), screening-age (50–64 yrs, n=99), post-menopausal (65–79 yrs, n=182) and elderly (≥80 yrs, n=146).

Elderly patients were more likely to present with tumours of special type (p=0.004), with only 56% of the elderly presenting with ductal carcinomas compared to 83%, 74% and 71% of premenopausal, screening-age and postmenopausal patients respectively. Elderly patients presented with lower grade (p=0.01), larger (p=0.02) tumours with lower stage nodal disease (p<0.001) leading to reduced Nottingham Prognostic Index scores (p=0.05). Elderly patients' tumours were more frequently Oestrogen-receptor positive (p=0.03) and HER2 receptor negative (p=0.001).

Conclusions: Little is known about the behaviour of breast tumours in the elderly since they are frequently excluded from research programmes. Our study showed that elderly patients present differently to their younger counterparts, with more prognostically favourable breast tumours. The elderly were more likely to present with larger but less aggressive tumours, which are more likely to be hormone sensitive. Further research into the management of breast cancer in the elderly is urgently needed.

440

ORAL

Patient's refusal of surgery strongly decreases prognosis of non metastatic breast cancer

H. Verkooijen¹, G. Fioretta¹, G. Vlastos², P. Schaefer², J. Kurtz³, A.P. Sappino⁴, H. Schubert¹, C. Bouchard¹. ¹Geneva Cancer Registry, Institute for Social and Preventive Medicine, Geneva, Switzerland; ²Department of Gynecology and Obstetrics, Geneva University Hospitals, Geneva, Switzerland; ³Division of Radiation Oncology, Geneva University Hospitals, Geneva, Switzerland; ⁴Division of Oncology, Geneva University Hospitals, Geneva, Switzerland

Background: Surgery is part of the standard treatment for localized breast cancer. Sometimes, however, surgery is refused by the patient. This study aims to evaluate the reasons for refusing surgery and its effect on breast cancer prognosis.

Methods: This study included all 5467 patients aged <80 years with non-metastatic breast cancer recorded at the Geneva Cancer Registry between 1975 and 2000 after exclusion of 20 patients discovered at death. Patient and tumor characteristics were considered. Clinical files of unoperated patients were consulted to assess the reasons for omission of surgery in order to identify patients who refused surgery and the reasons for this refusal. Patients who refused surgery were compared with operated women using logistic regression. The effect of refusal of surgery on breast cancer mortality was evaluated by Cox model after accounting for other prognosis factors.

Results: Sixty patients (1.1%) refused surgery. These patients were generally older, more frequently single and presented more often locally advanced disease. The reasons for refusal of surgery were psychological distress (n=17), use of alternative medicine (n=7), comorbidity (n=6), and 29 patients refused without explaining their reasons. Overall, 32 (53%) women had no initial treatment at all, 21 (35%) hormone-therapy alone and 7 (12%) other adjuvant treatment alone or in combination. Five-year specific breast cancer survival was 70% and 87% for non-operated versus operated women. Compared with the operated group, non-operated women experienced a 1.8-fold (95% CI: 1.1–2.9) increased breast cancer mortality after accounting for other prognostic factors, such as age and stage.

Conclusion: Refusal of surgical treatment strongly decreases breast cancer specific survival. This study might help women who refuse surgery to take a well-informed decision.