observer using standard published criteria to distinguish between positive and negative.

Results: Only one patient in the study had a complete response to primary medical treatment. Of those that had a partial or non significant response no clear pattern emerged but 6 of these tumours expressed bcl2 which was not expressed by the tumour that responded to treatment. There were 7 invasive ductal carcinomas that showed a partial or no response to chemotherapy and 5 of these had a significant in situ component.

Conclusion: The numbers are small but the presence of insitu carcinoma may indicate that the tumour is less likely to completely resolve with chemotherapy. Of the markers studied bcl2 expression may indicate a more chemotherapy resistant tumour.

492   POSTER

Male breast cancer: A 20 year review of 60 patients in Slovenia

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Male breast cancer is a rare disease. There are about 10 new male breast cancer patients each year in Slovenia. The aim of our retrospective study in which 60 male breast cancer patients treated at the Institute of Oncology in Ljubljana from 1975 to 1995 were included, was to find out the characteristics of male breast cancer in Slovenia and factors which influence the prognosis.

The median age at diagnosis was 61.5 years (range 20–83), 28 (47%) patients had UICC stage I–II, 22 (36%) stage III and 10 (17%) stage IV disease. All patients with stage I–II underwent radical surgery, 10 of them received adjuvant chemotherapy or hormonal therapy and 9 were locoregionally irradiated. Radical surgery was performed in 13 out of 22 patients with stage III disease, 8 of them received adjuvant treatment and 13 locoregional irradiation. Pathology review: 32 (68%) invasive ductal, 2 (4%) invasive lobular, other invasive 13 (28%). Between 40 patients with known histological node status, 60% were node positive and 40% node negative. ER and PR were positive in 73% and 62%, respectively. At the median follow up of 44 months (1–229), 5- and 10-year disease specific survival of all 60 patients was 64% and 39% and 5- and 10-year disease free survival (DFS) for 50 patients stage I–III was 56% and 39%, respectively. DFS was significantly affected by cT, nodal status and UICC stage, but not by histological type and adjuvant therapy.

493   POSTER

Change of Cu/Zn-superoxide dismutase in breast cancer tissue related to the tumor proliferation and differentiation being one of prognostic indicators

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The localization of Cu/Zn- and Mn-superoxide dismutase (SOD) in the breast cancer tissues (papillotubular carcinoma, 12; solidtubular carcinoma, 21; scirrhous carcinoma, 16; medullary carcinoma, 1; secreting carcinoma, 1; lobular carcinoma, 1; Paget's disease, 1) were studied by an immunohisto-chemical technique in 10% formalin fixed paraffin embedded thin sections using anti-human Cu/Zn- and Mn-SOD antibodies. Both SODs were strongly immunocytochemically stained in the normal breast gland, while they were not stained clearly in many cancer tissues. Furthermore, Cu/Zn-SOD was stained in higher incidence in well differentiated tubular carcinoma than in poorly differentiated. It tended to less stain in the tumors which developed recurrence or poor prognosis, and in the tumors with diploidy pattern of DNA flow cytometry. Mn-SOD stained in similar way as Cu/Zn-SOD, but we could not find any significant difference among the subgroups classified by each factor since the incidence of positive stained tumors was too small in every group.

In conclusion, the intensity of SOD staining seems to change relating to the cell proliferation and differentiation in the breast carcinoma and can be one of the prognostic indicators since SOD decreased in the poorly differentiated carcinoma or in the tumors which developed distant metastasis.

494   POSTER

Significance of blood flow analysis using color doppler ultrasound for prediction of relapse in patients with breast cancer

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Background: ᵐFIt would be exciting if you can know in advance whether a certain breast cancer is likely to relapse after the operation. This study evaluates if blood flow analysis of breast cancer prior to the surgery is useful for the prediction of its relapse.

Methods: ᵐFColor Doppler ultrasound was performed in 123 women with breast cancer between September 1991 and October 1994. Peak systolic velocity (PV) and acceleration index (AI) within the mass were analyzed.

Results: ᵐFIn twelve cases in which no color flow signal was detected, no one showed relapse of the lesion. In contrast, 23 patients with high PV (PV$^m \int$15 cm/s) and high AI (AUMJ12/s) (AI$^m \int$12/s), high rate (30.4%) of relapse was encountered. The lesions with low PV and/ or low AI (88 cases) relapsed at the rate of 5.4%(5 cases). In cases (40) with lymph node metastasis, high PV and high AI group showed 50% of relapse, but the relapse rate of the others was only 8.3% (2 cases).

Conclusion: ᵐFThe blood flow analysis seems promising for the prediction of relapse in patients with breast cancer.

495   POSTER

Surgeon's related quality of breast cancer surgery

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Purpose: Does good surgeon mean better chance for survival or even less postoperative complication?

Methods: The analysis was made basing on 895 fully documented cases after mastectomies performed by 10 surgeons during 5 year period in the 80's. Several parameters were assessed for quality control of surgeon's related results.

Results: There was some significant difference in the mean time of all operations performed by surgeons (range 82–92 min), especially for Halsted procedure (range 73–89 min; p < 0.005). These results were not affected by cancer advancement or a weight of patients. Axillary dissection was also correlated with surgeons and average number of resected nodes ranged from 12 to 15 (p < 0.005). We didn't find any differences in postoperative complication rates and with the length of hospital stay which would be related with surgeons. When survival rates were assessed in group of patients without lymph node metastases borderline significant differences between surgeons were observed. Results of 10-year survival ranged from 61.6% to 78.2% p = 0.052. After multivariate Cox analysis of several independent factors (including nodes status, tumour size, grading, etc.) surgeons did not have any more influence on survival.

Conclusion: Our data showed, that surgeons differ. However, in our centre the existing differences were of technical character and not connected with postoperative complication rate or with long-term survival results.

496   POSTER

Prognostic importance of active thermography in breast cancer

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Purpose: To reveal active thermography prognostic possibility in breast cacer patients we have analysed the remote results and the data of thermography in 1568 breast cancer patients (T.I – 286 patients; T.II – 789; T.III – 386; T.IV – 107).

Methods: The patients were examined by method of active thermography (Shekhter et al., 1982; Marzetti et al., 1983; Mazurin V. Ya. et al., 1985, 1996) with use of the thermograph and the thermovisions 'Phakel' and 'Raduga'. All the patients had hystological confirmation of diagnosis, were undergone various types of treatment and were observed during more than 7 years.

Results: All the patients were divided in 3 groups: I – with value of temperature gradient above tumor 1,5′C; II – with value of temperature gradient above tumor – 1,5′C-2′C; III-value of temerature gradient was over 2′C. One noted that high values of temperature gradient above tumor in cancer patient in the other indentical indexes (stage of process, condition of immune system, concomitant pathology age, morphological shape of tumor,

etc.) are important prognostic factors – there were cases of cancer relapses and metastasises in those patients.

Conclusion: Value of temperature gradient above tumor in thermographicl examination of breast cancer patients is reliable index of malignant process, i. e important prognostic factor.

497   POSTER

Histopathologic basis for axillary sampling

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Purpose: Axillary sampling as a diagnostic procedure has its proponents and opponents. This is a retrospective study on surgical pathology material to test the probability of predicting a correct qualitative axillary nodal status with non blind sampling, on the basis of lymph node size (and possibly consistency).

Methods: Slides from 499 axillary dissection specimens for symptomatic breast cancers diagnosed as pN1 or pN0 between 1991 and 1996 were reviewed. Lymph nodes were regularly processed by cutting them through their largest dimension. Nodes were ranked in descending order on the basis of their estimated size. In case of similar size several nodes were assigned to the same category. The qualitative axillary nodal status gained from the clearance specimen was compared with the axillary status gained from the first 3 to 6 largest nodes.

Results: 265 axillary clearance specimens were positive. Concordance rates with the qualitative axillary nodal status gained from the sample of the 3 to 6 largest nodes were compared to this number (A) and all the 499 specimens (B).

	3 nodes	4 nodes	5 nodes	6 nodes
Positive axillas	236–246	250–257	253–259	258–261
% (A) only positives	89–93%	94–97%	95–98%	97–98%
% (B) all	94–96%	97–98%	98–99%	99%

Conclusion: Sampling the 4 largest (firmest) nodes seems to give a reliable approximation of the qualitative axillary nodal status for symptomatic breast cancer.

498   POSTER

DNA flow cytometry in breast carcinoma (BC): Comparison with clinical outcome

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The aim of this study was to assess the prognostic value of data obtained from DNA analysis of tumor by means of flow cytometry in BC.

Nuclear DNA content was measured in 268 radical treated BC $T_{1-4}N_{0-2}M_0$ patients. 27% of a tumours were diploid and 73% – were aneuploid ones. TNM advancing and frequency of diploid T were correlated: in $T_1N_0M_0$ patients it was 41%, in $T_2N_0M_0 – 34\%$, in $T_{1-2}N_1M_0$ -25%, and in $T_{3-4}N_{0-2}M_0$ & $T_{1-2}N_2M_0 – 15\%$. Frequency of lymph nodes lesion in patients having tetraploid tumours was equal as in patients having diploid tumours; in patients having aneuploid non tetraploid tumours it was in 1.5 time higher (p < 0.05) and in patients having multiclonal aneuploid tumours – in 2.0 times higher (p < 0.05) in comparison with the patients having diploid tumours. Overall survival (OS) and disease free survival (DFS) in patients group with diploid and with tetraploid tumours were identical; its were better than OS and DFS in patients groups with aneuploid non tetraploid tumours and with multiclonal aneuploid tumours (p < 0.05). In BC $T_{1-2}N_0M_0$ patients flow cytometry can differ groups with 10-year DFS: 88 ± 7% – patients with diploid tumours and low part of proliferated (S + G2 + M < = 30%) cells; 59 ± 15% – patients with aneuploid non tetraploid tumours and low part of proliferated (S + G2 + M < = 30%) cells; 29 ± 14% – patients with aneuploid non tetraploid tumours and large part of proliferated (S + G2 + M > 30%) cells.

DNA-flow cytometry parameters have the prognostic importance in BC.

499   POSTER

Breast cancer under age 35 – In what way should we treat the patients

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Young age is obviously find as a risk factor which can deteriorate the prognosis in breast cancer patients. The aim of the study was to analise the consecutive series of 77 patients up to 35 years of age operated in Clinical Oncology Unit in Lodz between 1977 and 1992 and compare this group of patients with 376 older patients. We estimated overall survival and relapse free survival in both groups. Log-rang test was in use. The effectiveness of the treatment in the aspect of overall survival was the same in both groups, disease free survival was slightly better in the group of older patients (p = 0.049) but only in the first 5 years and only in the N positive subgroup of patients. The results of the study do not stimulate us to treat young patients in the more agressive way.

500   POSTER

Prognostic factors in patients with recurrent breast cancer following mastectomy

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Purpose: Optimal management of recurrent breast cancer disease is a matter of debate. The establishment of some prognostic variables may help to make decision about the therapy in these patients.

Methods: Between 1983 and 1991, 93 patients (median age 44 years, range: 20–80 years) who had loco-regional recurrence or distant metastasis following curative mastectomy + adjuvant chemotherapy and/or hormonal therapy, + adjuvant radiotherapy were treated. Menopausal status, the number of positive axillary lymph nodes (ALN) in diagnosis, relapse free survival (RFS), sites of relapse, number of metastatic sites and prior adjuvant therapies were reviewed to find out the prognostic factors following relapse.

Results: The median follow-up was 85 months (range: 64–132). The following patient characteristics were found significant with univariate analysis:

Patient Characteristics	Median Survival (months)	P
Premenopausal	53	
Postmenopausal	41	0.64
ALN 1–3	64	
ALN 4 and more	38	0.0002
RFS < 1 year	33	
RFS 1 and more year	55	0.0003
Soft tissue relapse	56	
Other sites relapse	38	0.0002
Metastasis site = 1	74	
Metastasis sites > 1	42	0.0001

When a multivariate analysis was performed, 4 and more positive axillary lymph nodes involvement and more than one metastatic sites were found significant. In this study, estrogen receptor status, histologic grade and other prognostic factors were not analyzed.

Conclusion: The results suggest that the number of positive ALN of initial disease have to be considered in addition to other prognostic factors in the patients with breast cancer following relapse.

501   POSTER

The use of p65 in generating the prognosis in female breast cancer

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A 65 kDa tumour-associated phosphoprotein p65 has been isolated from a conditioned medium of the transplantable rat hepatocellular carcinoma as well as from MCF-7 human breast cancer cell lines. Paraffin-embeded tissue slides from 89 infiltrating ductal breast carcinomas, 20 cases of fibrocystic disease and 20 fibroadenoma were assessed immunohistochemically with the usage of monoclonal and polyclonal antibodies against human p65 antigen. In benign tumours only one case of fibrocystic disease with large epithelioplasia was p65 positive showing a cytoplasmatic reaction in some proliferating cells of ducts. The chi-square method showed no correlation between malignant tumour size and expression p65. A statistically significant