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FINE NEEDLE ASPIRATION BIOPSY OF PALPABLE BREAST LESION, REVIEW AND STATISTICAL ANALYSIS.

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A total of 211 consecutive breast fine needle aspiration cytologic specimens were reviewed in order to assess the accuracy of the test. Correlation was made with histology in 100 cases (47%) or clinical follow up(12-36 months) in 111 (53%). The specimens were obtained by several physicians. All slides were screened by a cytopathologist. Cytologic diagnosis was benign in 91 cases (43%), malignant in 73 (35%) and inadequate for diagnosis in 47 (22%). On biopsy 64 lesions (64%)were benign and 36 (36%) were malignant. No breast cancer was diagnosed during the follow up period in women who had no biopsy. Excluding the inadequate specimens the sensitivity of cytology in diagnosing breast carcinoma was 91% and the specificity 90%. The positive predictive value was 98% and the negative predictive value 92%. The overall accuracy of the test was 94%. We conclude that fine needle aspiration biopsy of palpable breast lesions has a very acceptable diagnostic accuracy. Our results are comparable with other reported studies.

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INTERRELATIONSHIP BETWEEN THE CELLULAR AND HUMORAL IMMUNITY INDICES AND THE PITUITARY HORMONE LEVELS IN THE BLOOD OF YOUNG PATIENTS WITH BREAST CANCER.

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Relationship between the pituitary hormone blood levels (LH, FSH, prolactin and ACTH) and the parameter of cellular and humoral immunity were investigated in 60 young (20-35) and 60 middle (36-45) aged breast cancer patients. Hormone levels were assayed before the treatment, at 5-7th and 22-25th days of 28-30-day menstrual cycle, estimated using the monoclonal antibodies (ICO series). Unlike the middle-aged patients, the young ones revealed a menstrual phase-independent positive correlation between the basal level of FSH and the degree of expression of lymphocyte activation markers (CD30 and CD38). In young patients the follicular phase was characterized by a negative connection between the level of prolactin and the intensity of expression of B-cell (IgM-μ, HLA-DR) as well as activation (CD38, RFB-1) markers; on the contrary, in the luteinizing phase a positive correlation between these parameters was observed. No correlations between the concentration of LH and/or ACTH and the indices of humoral and cellular immunity in youngs could be revealed. This relationship may reflect an existence of basic differences in immuno-endocrine homeostasis in young breast cancer patients as compared to middle-aged ones.

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REPRODUCTIVE HISTORY AND PROGNOSIS IN BREAST CANCER PATIENTS.

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Reproductive factors influence the risk of development of breast cancer. The aim of this study was to determine if these factors correlate with prognosis in breast cancer patients (pts). The study was performed in the group of 1885 pts treated with radical mastectomy between 1952-1980; 817 of them were irradiated postoperatively, systemic adjuvant therapy was not used. 10-years overall (OS) and disease-free survival (DFS) rates were calculated with life-table methods and compared with log rank test. The univariate analysis showed that nulliparous women have better survival rates than parous (OS-62% vs 53% p=0.006. DFS-52% vs 44% p=0.004) and that rates are decreasing with number of pregnancies and deliveries. In multivariate analysis (Cox model) with classical prognostic factors (tumour size, grade and nodal involvement) parity and number of deliveries remained a significant prognostic indicator.

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INCREASE IN CEA IN DEPENDENCE OF THE ESTROGEN RECEPTOR STATUS IN PATIENTS WITH METASTATIC BREAST CANCER

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The increase of CEA in dependence of the estrogen receptor status was investigated.
30 pats. with estrogen receptor (ER) positive and 15 pats. with ER- breast tumors were investigated for the increase in CEA at the time when clinically overt metastases occurred. It was found that 42.6% of patients with ER + tumors had an increase in CEA above normal (> 5 ng/ml). In contrast, only 6.7 % of patients with ER-tumors had an increase in CEA-levels. Finally, levels of lactate dehydrogenase varied in their concentrations which were independent of ER status. We thus conclude that the interpretation of CEA serum levels in patients with ER- breast cancer should be done with caution keeping in mind the high likelyhood of negative CEA levels even in the case of disseminated metastatic disease. Extrapolating from these results, an increase in CEA serum levels in patients with breast cancer with unknown hormone receptor status could indicate ER positivity and thus lead to the use of tamoxifen as therapeutic option.

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MALE BREAST CANCER - ANALYSIS OF MORPHOLOGY, CELL KINETICS AND FOLLOW-UP

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Analysis was performed on forty cases of male breast cancer observed between 1960 - 1992. Most patients were treated by surgery. Histology and cell kinetics were evaluated on the tumor material embedded in paraffin blocks. Histological parameters such as a type of tumor (according WHO), micro- or macrofocal spreading, involvement of blood vessels, lymphatics and nerves by tumor cells and the extent of necrosis were considered. Involvement of perinodal tissue, blood vessels and lymphatics by tumor cells was also evaluated in cases with positive lymphnodes. The content of estrogen receptors in tumor cells was examined by immunohistochemistry. By evaluation of cell kinetics the mitotic index, the content of PCNA in tumor cells assessed by immunohistochemistry and the flow-cytometric DNA-analysis were considered. The morphological and cell-kinetics parameters demonstrate various degrees of correlation. The most important prognostic factor seems to be the clinical stage of the disease.

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COMPARISON OF TWO DIFFERENT METHODS FOR DETERMINATION OF ER, IN 648 BREAST CANCER (B.C.) PATIENTS.

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ER were determined in 648 cases of primary B.C. by biochemical (ERDCC) and immunoistochemical (ERICA) methods. Median age was 60 (range 24-91); 30% of patients were $\leq$ 50 year old; 42% were T1, 43% T2, 1.7% T3, 8% T4 and 5.3 TX; 41% were N- and 59% were N+. Patients were considered ERDCC + when ER $>$ 10 fmol/mg protein (71% of patients); ERICA results were expressed as percentage of positive cells.
Results: a statistically significant linear correlation was found between logarithm of ERDCC value and ERICA score, (r= 0.68, $p <$ 0.001). To evaluate ERICA in predicting positive ($>$ 10) and negative ($\leq$ 10) ERDCC values, a R.O.C. analysis was performed. The "best" cut-off was 45% of positive cells , with a sensitivity of 0.815 and a specificity of 0.807. Slightly better values of performance of the R.O.C. analysis were found when the threshold for ERDCC was fixed at 6 fmol, but the difference was not so important to advice to change the classic value of 10 fmol.
Conclusions: a good correlation was found between the two methods; the follow-up of the patients and the correlation with the response to hormonal therapy are necessary to better compare the prognostic and predictive value of ERDCC and ERICA.