

11.

UNFAVORABLE PROGNOSIS OF BREAST CANCER ASSOCIATED WITH HYPERPROLACTINEMIA. G.A.Nagel, W.Holtkamp, H.-E.Wander, Ch.Blossey. Divisions of Hematology/Oncology and Endocrinology, Department of Internal Medicine, University Goettingen, FRG.

In preliminary recent reports it was suggested that patients (pts) with metastatic breast cancer (mbc) and hyperprolactinemia (HPRL) have an unfavorable prognosis and/or increased chemotherapy (CT) resistance (Aldinger et al: Arch.Int.Med. 138, 1638, 1978); Willis et al.:Br.Med.J., I, 425, 1977). We report about a prospective study designed to correlate PRL levels with other prognostic factors in mbc and response to CT. PRL is measured by radioimmunoassay (range of normal controls 50-500 iu/L), HPRL is defined as PRL > 1000 iu/L. HPRL is found in 25 % of mbc pts with predominance in mother/daughter type familial bc and equal distribution in pre- and postmenopausal pts. HPRL is more often found in pts with progressive mbc than in stable disease or remission. The overall remission rates with first line CMF or VAC CT are 63 % for all pts and 27.5 % for HPRL pts ($p < 0.01$). Median remission rates, remission duration and survival are shorter for HPRL pts. In premenopausal pts HPRL mbc appears to be a very aggressive disease with a rapid disease development, multiple organ and early brain involvement. In 22 pts with HPRL refractory to CMF or VAC PRL was normalized by Bromocriptine application together with CMF or VAC resulting in remission in 12/22 pts. Further investigations are needed to explain the high frequency of HPRL in advanced mbc and the mechanism of action of HPRL associated chemotherapy resistance.

12.

IS THE METASTATIC INVOLVEMENT OF THE OVARIES AT THE MOMENT OF SURGICAL HORMONOMANIPULATION A PROGNOSTIC FACTOR ?

R.Mégevand, R.A.Egeli, A.Spiliopoulos, G.Rosset, E.Fulliquet from the Service of Thoracic Surgery, Dept of Surgery, and the Division of Oncohematology, Dept of Medicine, H.C.U., CH-1211 Geneva, Switzerland.

Since the "routine use" of steroidreceptors, hormonomanipulation is more and more often used in metastatic breast cancer. The question if metastatic involvement of the ovaries influences the outcome of the survival rises again. For this reason we have reviewed our experience with therapeutic ovariectomies during the last 5 years. During this period 17 patients underwent ovariectomy, 30 % as a first therapeutic act for advanced tumors with bad prognostic factors (before mastectomy). The remaining 70 % underwent ovariectomy for metastatic disease. In this later group we found a metastatic involvement of the ovaries in 56 %. This subgroup survived the ovariectomy for 2,5 months (mean) only. On contrary the remaining 44 % of the patients who had no metastatic involvement of the ovaries survived the surgical hormonomanipulation procedure for 19 months (mean). We concluded from our experience that metastatic involvement of the ovaries at the moment of therapeutic ovariectomy for metastatic breast cancer is a bad prognostic sign and these patients need immediately complementary chemotherapy.

13.

INFLUENCE OF CONCURRENT OR SUBSEQUENT PREGNANCY ON THE COURSE OF BREAST CANCER. W.F.Jungi, Abt.für Onkologie, Medizinische Klinik C, Kantonsspital, 9007 St.Gallen.

The clinician is confronted once in a while with the combination of breast cancer and pregnancy and is looking for valid guidelines for the management of this critical situation. The advices from the literature are vague and often contradictory. We have therefore tried to analyze our own experience in 19 cases (10 concurrent, 9 subsequent), to compare them to reports from the literature and to establish firm guidelines. The casuistic will be presented at the meeting.

Conclusions: There is no general adverse mutual influence of breast cancer and pregnancy. However first detection of breast cancer in pregnancy is always of ominous significance. In most of these cases there is considerable delay and advanced tumor stage, which explains the dismal prognosis. The life of the mother has first priority so that an interruption becomes often mandatory, whereas the interruption per se has no tumor-inhibiting effect. Pregnancy after primary treatment for breast cancer may be allowed for initially node-negative patients after 2 years recurrence-free observation. In all other cases strict anticonception is indicated, preferably with non-hormonal measures.

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14.

T-LYMPHOCYTE CLONING AND LYMPHOCYTE STIMULATION AS PREOPERATIVE IMMUNOLOGIC PARAMETERS IN BREAST-CANCER PATIENTS.

D. Hartmann, Ch. Ludwig, M. Häusler, M. Troxler, W. Dickreuter, D. Stucki, P. Gallachi, F. Harder, J.P. Obrecht Department of Research, Kantonsspital Basle, Switzerland

We report on a controlled age and sex matched trial where cloning of T-lymphocytes (TL-CFU) in agar was compared to standard immunologic tests, i.e. lymphocyte stimulation with PHA, PWM and CON A and determination of the absolute number of lymphocytes (LY), B-cells and T-cells. In the literature there was evidence that the TL-CFU-assay might be the more specific tool to evaluate impairment of immunologic functions. 110 patients (PT) with breast cancer and 79 normal controls (NCO) have been entered into the study. PT were subdivided into pre- and postmenopausal as well as into different clinical stages (I-IV). So far, no statistically significant differences between PT and NCO were found for the absolute number of lymphocytes, B- and T-cells. Also, no difference was detected between the two groups with regard to T-lymphocyte cloning. However, stimulation with CON A showed significant ($P < 0.04$) lower counts in postmenop. PT (stage I) and a similar trend has been found for PHA in postmenop. PT (stage IV). Thus, our results do not confirm the above mentioned previous data in the literature. To further evaluate possible differences in the relative distribution of T-helper and T-suppressor-lymphocytes in PT and NCO, we now have started to use monoclonal antibodies and differential lectin agglutination tests. These results will be discussed, too.

15.

THE MAMMARY CARCINOMA CELL LINE MCF-7, AN IN VITRO MODEL FOR ESTROGEN-DEPENDENT TUMOR GROWTH. W. Roos, J. Torhorst, D. Stucki, A. Almendral, L. Oeze, U. Eppenberger, Department of Research and Gynecology, University Medical School, CH-4031 Basel, Switzerland.

The human mammary carcinoma cell line MCF-7, originally described by Lippmann et al, can be shown to behave like hormone-dependent mammary tumors in vivo with respect to stimulation of growth by estradiol. A 3-fold increase of the proliferation rate can be observed with 10^{-10} to 10^{-9} M estradiol, but only if the culture medium containing 5 % calf fetal serum is pretreated with a dextran-charcoal suspension to eliminate endogenous estradiol concentration. The anti-estrogen effect of Tamoxifen is shown to be effective only against estradiol-stimulated cells. Tamoxifen may exhibit a weak estrogenic action at low concentration (10^{-7} M) causing an increased proliferation of MCF-7 cells.

Stimulation of the creatine kinase isoenzyme BB by physiological concentrations of estradiol and the correlation between estrogen dependency and the expression of peanut lectine-binding sites were investigated and evaluated as possible biological marker of estrogen.

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