666 POSTER

HAVE HISTOLOGICAL GRADE NUCLEAR COMPONENTS (MSBR) OF SCARFF BLOOM RICHARDSON (SBR) A PROGNOSTIC VALUE FOR LOBULAR INVASIVE BREAST CARCINOMA?

V. Le Doussal, M. Tubiana-Hulin, K. Hacène, F. Spyratos, S. Lasry, J.R. Garbay, J. Rouëssé
Centre René Huguenin, 35 rue Dailly, 92210 Saint-Cloud, France

Usually, the SBR histoprognostic grading is not considered appropriate for lobular invasive carcinoma. We previously demonstrated improved prognostic value of a modified SBR grading (MSBR) for invasive ductal carcinoma (IDC), specially when node negative. We did a multivariate analysis of 291 patients with operable, invasive, lobular breast carcinoma, to assess the prognostic value of the SBR/MSBR grading. We applied this MSBR to the studied population. The Cox multivariate analysis showed that the nodal status, clinical tumor size and MSBR were the three most important prognostic factors for DFS, and nodal metastasis, MSBR and progesterone receptor (PR) status for MFS.

Indeed, we concluded that SBR grading is relevant for lobular invasive carcinoma, MSBR being more accurate, mainly because it discriminates grade II SBR patients. This result was not surprising as the pattern of ILC implicated a higher proportion of grade II SBR patients (78%), than IDC (55%).

667 POSTER

THE PREVALENCE OF KNOWN BREAST CANCER RISK FACTORS AMONG POPULATION

V. Levshin
Cancer Research Center, Moscow, Russia

The prevalence of several known breast cancer risk factors was explored among healthy Moscow residents. 8200 women aged 40–69 who attended medical check-ups were interviewed using a standardized questionnaire. The results show that the proportion unparous women was 14%; 11% parous women had first birth over 30 years; 8% parous women mentioned an abstention from breast-feeding and 4% of all women mentioned a family history of breast cancer. 16% examinated women had history of cyclic mastalgia and about 20%- history of benign breast disease. Overall about 35% women mentioned one or more breast cancer risk factors in personal history. These data are useful for evaluation and elaboration some breast cancer prevention programs.

668 POSTER

P53 MUTATION AND CHEMOSENSITIVITY IN BREAST CANCER PATIENTS

A. Makris[1], T.J. Powles[1], C. Allred[2], M. Dowsett[1]
[1]*Royal Marsden NHS Trust, London and Surrey, U.K.*
[2]*University of Texas, San Antonio, Texas, U.S.A.*

Mutations of the p53 tumour suppressor gene are the commonest genetic change in breast cancer patients. There are theoretical arguments for both increased and decreased chemosensitivity in tumours with mutated p53.

We have investigated the relationship between p53 status and clinical response of the tumour to neoadjuvant chemoendocrine therapy (prior to surgery) in 57 patients with primary breast cancer. All these patients received 4 cycles of chemotherapy with mitozantrone 11 mg/m^2 and methotrexate 35 mg/m^2 together with tamoxifen 20 mg daily prior to surgery. FNAs were taken from these patients prior to treatment and cytospin slides were prepared. Enzyme immunocytochemistry for p53 was performed using a cocktail of antibodies, (PAb1801 and PAb240 as supplied by DAKO). According to UICC criteria, of 36 patients with p53 -ve tumours 29 (80%) had an objective response (CR or PR) compared to 21 patients with p53 + ve tumours of whom 16 (76%) had an objective response ($P > 0.1$). The remaining 12 patients all had stable disease prior to surgery.

We have thus found no significant correlation between expression of p53 protein and clinical response to chemoendocrine therapy. This indicates a lack of correlation between p53 mutation and chemosensitivity although an interaction with tamoxifen in our combined endocrine chemotherapy cannot be excluded with these data.

669 POSTER

LONG TERM (>10 YEARS) PROGNOSTIC VALUE OF ESTROGEN AND PROGESTERONE RECEPTORS FOR OPERABLE BREAST CANCER

L. Mauriac, F. Bonichon, M. Durand, J. Wafflart, A. Avril
Institut Bergonié, 180, rue de Saint-Genès, 33076 Bordeaux Cedex, France

Estrogen and progesterone receptors (ER-PR) are (questionable) prognostic factors for survival and disease-free survival. We have studied their prognostic value in a long term analysis which included 1203 women operated on for a breast cancer from 1980 to 1985 in a single comprehensive Cancer Centre. The median follow-up is 124 months.

Survival curves and metastatic free survival curves were calculated using the Kaplan Meier method. Log-rank test was used to test their differences. A Cox model analysis was performed to evaluate the weight of the different prognostic factors.

Overall survival is 64.5% for the whole population. **With univariate analysis,** nodal involvement was the most predictive value before tumor size, age, SBR grading, progesterone receptors, menopausal status and estrogen receptors. **With multivariate analysis,** nodal involvement maintains its high prognostic value before PR negativity, age, tumor size and SBR grading for overall survival and before tumor size, SBR grading and PR negativity for metastatic free survival. ER does not have any prognostic significance for survival.

670 POSTER

HIGH FREQUENCY MODULATION IMPROVES DIAGNOSTIC VALUE OF DUAL WAVELENGTH LASER TRANSILLUMINATION OF THE BREAST—A PILOT STUDY

K.T. Moesta, M. Kaschke[1], G. Gaida[1], K. Niemier, H. Kaisers, P.M. Schlag
Department Surgical Oncology, Robert Rössle Hospital and Tumour Institute, The Free University of Berlin
[1]*Carl Zeiss, Oberkochen, Germany*

Non-laser and unmodulated laser breast transillumination in the past did not show convincing clinical results due to high light scattering. We investigate the potential benefit from high frequency light modulation to compensate for scattering by phase analysis. In a pilot study, 25 consecutive patients undergoing surgery for imageable breast lesions (15 malignant, 4 benign tumours and 6 mastopathy only) were investigated preoperatively. The scanning instrumentation provided light at 690 nm and 810 nm, both modulated at 110 MHz, heterodyne detection enabled the phase measurement. Conventional images (transmission red/NIR) were compared to images of calculated mean absorption coefficient μ_a and reduced scattering coefficient μ_s distribution, based on light absorption and phase information at both wavelengths. Conventional imaging did demonstrate 7/15 malignant lesions while 11/15 were visible on either μ_a or μ_s-images. Benign tumours were demonstrable in 3/4 cases, while mastopathy leading to surgical biopsy was always optically inapparent. High frequency modulation may considerably improve the diagnostic accuracy of laser breast transillumination.

671 POSTER

POTENTIAL AND ACTUAL GROWTH RATE OF PRIMARY BREAST CANCER

V.M. Moiseyenko, V.F. Semiglazov, K.M. Pozharisski, M.F. Chernomordikova
N.N. Petrov Research Institute of Oncology, St. Petersburg, Russia

Actual and potential growth rate of primary breast cancer was analysed in 12 pts. The actual doubling time (DT) determination was carried out by retrospective analysis of mammograms. Labeling index (LI) was assessed by histoautoradiography with 3H-thymidine in the same pts. after surgery.

Median LI was 7.2% (range 0.9–18.9%) and median potential DT calculated according to special formula (Silvestrini R. *et al.*, 1974) was 3.8 days (range 0.6–11.7). Median actual DT for the same tumours was 86.7 days (range 30–152.4). This means that in fact primary breast cancer grows 22.8 times slower than it can be expected according to potential DT. The main reason for this is "cell losses" which achieves in average 95.5% (range 86.0–99.0) (according to Straum M., Moran R., 1977).