

**Methods:** Immunohistochemistry with monoclonal antibodies JSB1 (anti-pGP) and DO7 (anti-p53) using a streptavidin/biotin/HRP technique on paraffin sections.

**Results:** pGP staining was strong in 10 (25%) and weak in 18 (45%) specimens. Among the 28 pGP +ve cases, DO7 labelling was found in 12 (43%), whereas in the remaining 12 pGP -ve cases 4 were p53 +ve.

**Conclusion:** No significant relationship ( $\chi^2$ -test:  $>0.05$ ) was observed between pGP and p53 expression and therefore p53 accumulation does not stimulate pGP expression in primary breast cancer.

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POSTER

### Induction of PCD with doxorubicin in invasive lobular carcinoma cells of human breast by circumventing MDR-1 with colloidal phosphorothioate

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Antisense oligonucleotides such as phosphorothioate was entrapped in DRV colloidal particles for circumvention of intrinsic resistance to chemotherapy. Invasive lobular carcinoma cells of human breast exhibited enhanced expression of MDR-1 immunocytochemically. Pgp synthesis was inhibited after incubation of these tumor cells with colloidal phosphorothioate for 8 hours at 37°C. Combined administration of doxorubicin has induced D2 stage of apoptosis and bystander effect after 72 hours post-incubation, according to electron microscopy analysis. Thus, colloidal phosphorothioate has reversed MDR allowing doxorubicin influx which leads to PCD and subsequent bystander effect, eradicating the chemoresistant lobular carcinoma.

Friday, 2 October 1998

16:00-18:00

## PARALLEL SESSION

### Psychosocial oncology

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INVITED

#### Psychosocial oncology: Where are we now?

Ann Cull. *ICRF Medical Oncology Unit, Western General Hospital, Edinburgh EH4 2XU, UK*

The origins of psychosocial oncology derive from concerns about the psychological consequences of mutilating surgery in the treatment of breast cancer. Psychosocial oncology has now come of age as discipline. As this symposium will demonstrate it is now addressing a wide range of issues across the spectrum of contemporary concerns in oncology, with research associated with breast cancer still leading the way. This presentation will provide an integrative context for the papers which are to follow, by summarising progress and highlighting current psychosocial research issues in each of the three key areas represented in the symposium i.e. prevention, treatment research and patient care. The need to consider how psychosocial research findings influence future practice in these domains will be discussed.

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ORAL

#### Does psychological response influence survival from breast cancer?

M. Watson<sup>1,2</sup>, J.S. Haviland<sup>2</sup>, S. Greer, J. Davidson<sup>2</sup>, J.M. Bliss<sup>2</sup>. <sup>1</sup>The Royal Marsden Hospital; <sup>2</sup>Institute of Cancer Research, London and Sutton, UK

**Purpose:** To clarify the impact of psychological response on survival of a large cohort of women with early breast cancer.

**Method:** 578 women were enrolled into a prospective survival study. Psychological response was measured using the Mental Adjustment to Cancer (MAC) Scale, the Courtauld Emotional Control Scale (CECS), the Hospital Anxiety and Depression Scale (HADS) assessed between 4-12 weeks post-diagnosis. Cox proportional hazards regression was used

to obtain the hazard ratios for the measures of psychological morbidity, adjusting for a number of prognostic factors associated with survival.

**Results:** At 5 years 392 were alive and without relapse, 50 alive with relapse and 133 had died. There was a suggestion of increased risks of death from all causes by 5 years in women with high scores on MAC helplessness and HADS depression, although only the result for HADS depression reached statistical significance. When adjusting for all prognostic factors and all MAC and HADS scores, the effect of HADS depression was no longer significant. For event-free survival there was a significant increased risk of cancer death or relapse by 5 years in women with high scores on MAC helplessness. This remained significant after adjusting for all prognostic factors and all MAC and HADS scores (HR = 1.63, 95% CI 1.07-2.49, for a MAC helplessness score of  $\geq 12$ ).

**Conclusion:** For overall survival there is a borderline effect of MAC helplessness, but a high score for HADS depression results in a significantly worse survival. For 5 year event free survival a high MAC helplessness score has a significant detrimental effect.

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#### Depression subsequent to breast cancer

K. Hjerl<sup>1</sup>, E. Olsen<sup>2</sup>, N. Keiding<sup>2</sup>, P.B. Mortensen<sup>3</sup>, T. Jørgensen<sup>1</sup>. <sup>1</sup>Centre of Preventive Medicine, KAS Glostrup; <sup>2</sup>Department of Biostatistics University of Copenhagen; <sup>3</sup>Department of Psychiatric Demography, University Hospital of Århus, Denmark

**Purpose:** To test the hypothesis that women subsequent to invasive primary breast cancer have an increased risk of admission into psychiatric departments with affective or neurotic disorders.

**Method:** The base population comprised all 64,927 women registered in the nation-wide Danish Cancer Registry with primary invasive breast cancer during the period 1970-1993. By cross-linkage to the nation-wide Danish Psychiatric Central Register we identified women admitted with an affective or neurotic disorder subsequent to breast cancer.

The incidence of admission into psychiatric department with affective or neurotic disorder in women with breast cancer is compared to the incidence of admission into psychiatric department with affective or neurotic in the normal population of women adjusted for age, calendar period and urbanity.

**Results:** Women with breast cancer have an significant increased risk of admission into psychiatric department with affective or neurotic disorders in a period in connection with the diagnosis of breast cancer. The time-dependent incidence rates will be presented.

**Conclusion:** Breast cancer seems to be a risk factor for admission into psychiatric departments with affective and neurotic disorders.

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ORAL

#### Psychosocial implications of prophylactic bilateral mastectomy

M.B. Hatcher, L.J. Fallowfield, K. Thirlaway, A. Hall. *CRC Psychosocial Oncology Group, Dept of Oncology, University College London, UK*

**Purpose:** With the numbers of women contemplating prophylactic bilateral mastectomy increasing it is important that the psychological costs and benefits of this procedure are established.

**Method:** The study will measure psychological morbidity, describe the decision making process, determine the communication and counselling needs and identify pre-operative factors that may predict post-operative distress. 76 women will be interviewed before surgery, then at 6 and 18 months post operatively. 76 women declining surgery will be interviewed after first contact, then 18 months later. All women will be given standard psychological questionnaires to complete at each interview.

**Results:** Interim analysis shows that women opting for surgery have a more accurate perception of the general population risk, but when it comes to personal risk estimates a higher percentage of the surgical group felt it was inevitable that they would develop the disease. Analysis of the General Health Questionnaire, a screening tool for psychiatric distress, has shown that women opting for surgery are also more distressed than those opting for regular surveillance. A strong factor that appears to be associated with those opting for surgery, and which also appears to influence decision making, is personal family history. Other issues that are emerging include: insufficient information; lack of funding; isolation and post-operative complications.