primary tumour allowing conservative surgery on the breast. Data analysis, from the many studies performed, shows that this therapeutic approach results in tumour downstaging in 70–90% of cases. Complete clinical remission and no residual palpable disease in the breast, range from 17% to 51% for tumours greater than 3 cm in size, and allows breast - sparing surgery in almost the same number of patients (1–6).

As regards surgical problems related to PC, there are strictly medical issues (i.e., the choice and the way of administration of drugs, the treatment planning), some others of surgical relevance (i.e., surgical techniques or indications, intraoperative planning), and, finally, others of general interest (i.e., the degree of response to PC, the usefulness and the timing of radiotherapy, data analysis). Regarding the surgical questions, these could be summarized on the followings: 1) the possibility of disease progression during the medical treatment; 2) the persistence of microcalcifications at the mammographic examinations at the end of the PC; 3) the bifocality or the multifocality of the tumour, eventually revealed by partial regression induced by medical treatment; 4) the indications to surgery and the surgical techniques; 5) intraoperative planning (i.e., evaluation of surgical margins, surgical approach in case of macroscopic complete regression of the tumour); 6) right and suitable information given to the patients.

One of the less discussed items is the risk of disease progression during chemotherapy: how many cases of operable breast cancer could risk becoming no longer amenable to surgery? In a large series of 536 patients at the National Cancer Institute of Milan, the rate of disease progression during induction chemotherapy was in the range of 3%, but only one patient resulted no longer amenable for any surgical operation. The rate is very low and, moreover, half of these patients were monitored in complete remission after a long follow-up period. A quite similar rate (2–3%) of progressive disease during chemotherapy is presented in the study of Royal Marsden Hosp. in London, and on that of NSABP B-18 carried out by Fisher.

Friday, 22 March 2002 14:45–16:15

SYMPOSIUM

Treatment tailoring – translational research

330 INVITED

Can we predict response to therapy in breast cancer?

Abstract not received.

331 INVITED

Development of surrogate endpoints in translational research

Abstract not received.

332 INVITED

Molecular endpoints

M. Dowsett. *Royal Marsden Hospital - NHS Trust, Professor of Biochemical Endocrinology, London, United Kingdom*

The response of breast cancer patients to individual therapies is highly variable. In these circumstances individualised therapy has the potential to maximise the opportunities for response and minimise any associated toxicity and cost in the non-responsive population by avoidance of the unnecessary therapy. The opportunity exists to use molecular markers as intermediate end-points of response early in the presurgical treatment of patients to identify those who are likely to progress to clinical response and derive long-term benefit from the treatment. Changes in proliferation (measured as Ki67) and apoptosis (measured by TUNEL) have been our focus since they are intimately involved in determining changes in tumour growth. Increases in apoptosis after 24 hours of chemotherapy are measurable but these do not appear to predict response, possibly due to temporal variability in the maximal pharmacodynamic response to treatment. In contrast changes in proliferation after 2-3 weeks were significantly associated with response to chemotherapy, endocrine therapy and chemo- endocrine therapy. As such change in Ki67 is an attractive end-point for new drug development and we have applied this to the study of raloxifene, idoxifene and ICI 182780 during the 1-3 week period between diagnosis and surgical excision. Studies in xenografts demonstrate that substantial changes in proliferation and apoptosis can occur which only result in stabilisation of disease. As such these end-points may be more indicative of treatment effects on tumours than response measurements themselves and be particularly useful in the assessment of some of the new biological agents which are expected to have tumouristatic effects.

The search for further, hopefully more sensitive and reliable, indices of response is now being evaluated by modern molecular pathological techniques such as c-DNA arrays and candidate genes have been identified for further assessment in larger cohorts. It is now known that tumour cells can be isolated from the circulation of patients with metastatic breast cancer and assessment of molecular end-points of treatment in these is also an exciting possibility for future study.

333 INVITED

Facilitating translational research: the patient/advocate input

D. O'Connell. *Europa Donna Ireland, Dublin, Ireland*

Translational research utilising developments in biomedical research and medical informatics offers improved prospects for treatment tailoring in the clinic. This has led to debate on issues of concern to scientists and patient/advocates, including the use of biological materials, informed consent, patient confidentiality, and the consequences for patient and family resulting from germline genetic testing. The concerns of patient/advocates reflect an increased awareness of individual rights, balanced by a desire to find better treatments tailored to their disease. Scientists are concerned that exciting new developments leading to improved clinical treatments may be hampered. It is in the interests of both groups to collaborate, with open discussion on such topics as informed consent and privacy. The patient/advocate input includes communicating the concerns of the patient/advocacy community to the scientific community, listening to the concerns of the scientific community, collaborating in addressing those concerns, and disseminating full and accurate information among those she represents. The desired result is to achieve the maximum benefit to present and future breast cancer patients by facilitating translational research resulting in better treatment outcomes, while ensuring that patient concerns in relation to confidentiality, informed consent and other issues are met satisfactorily.

Friday, 22 March 2002 14:45–16:15

EUROPA DONNA SYMPOSIUM

The psycho-social implications of breast cancer

334 INVITED

The psycho-social impact

D.K. Wellisch. *UCLA School of Medicine, Department of Psychiatry, Los Angeles, USA*

This talk will address multiple factors related to the psychosocial impact(s) of breast cancer. One set of impacts is related to the individual with breast cancer and another set of impacts is related to the family of the breast cancer patient. For the patient this talk will outline the woman at elevated risk for psychiatric complications in facing breast cancer and its treatments. The talk will then address the etiological factors and prevalence of pathological anxiety, depression, and post-traumatic stress disorder in breast cancer patients. A focus on the psychosexual impacts of breast cancer will also be undertaken. The talk will focus on the impacts of breast cancer for the spouse/significant other and children of the breast cancer patient. The issues of depression, anxiety, and coping for the spouse and children will be addressed. For the daughter of the breast cancer patient, data from the UCLA High Risk Clinic will be presented. Specifically. a profile of the daughter at risk for psychiatric difficulties will be described, as well as levels of depression, anxiety, and post-traumatic stress disorder in such daughters will be presented. The talk will conclude with some suggestions for interventions for the patient and her family.