Wednesday, 22 March 2006 14:15–16:00

EUROPA DONNA SESSION

Management of high risk families

30 Invited

Clinics for high risk women

B. Arver. *Karolinska University Hospital Solna, Department of oncology and pathology, Stockholm, Sweden*

A family history of breast cancer is a major risk factor for getting the disease. Women with one or two close relatives with early onset breast cancer have a two to three times higher risk than women in general. Females with mutation in one of the breast cancer genes BRCA1 or BRCA2 have up to 80% life time risk of getting breast cancer. Their risk of ovarian cancer is also elevated and early onset is common.

Women with a family history of breast cancer can consult our hereditary breast cancer clinic without a referral. The onco-genetic counsellor draws a pedigree and the diagnosis of cancer in the family is confirmed through medical files or by death certificates. Genetic analyses are offered if applicable and finally an individual risk assessment is made. Women with a very high life time risk of breast and/or ovarian cancer have two options, either prophylactic surgery or regular surveillance. Women opting for a prophylactic mastectomy with reconstruction are guided through the process by a multidisciplinary team including a geneticist, oncologist, surgeon, plastic surgeon, psychologist, gynaecologist and specially trained nurses. International studies have shown a 90% risk reduction after a prophylactic mastectomy and an evaluation of their postoperative quality of life and the sexual consequences of the operation are ongoing.

With regards to women who do not opt for a prophylactic mastectomy a follow up study including 600 women from Stockholm with an increased risk of breast cancer is also ongoing. Women with a 20 to 80% lifetime risk of breast cancer have been invited to participate after receiving onco-genetic counselling and a risk assessment. The main question of the study is to determine which method, self examination, doctors examination, mammography or ultrasound will first detect a malignant breast tumour? Mutation carriers from 25 years of age upwards have been included in the study. In addition lower risk women with a family history of breast cancer and who are at most ten years younger than their relative's age at diagnosis are also included. An upper age limit of 60 years has been applied. Other factors like breast density, reproduction, hormone use, physical activity and alcohol consumption are also being taken into account. Baseline data are now being evaluated.

31 Invited

Training genetic counselors – what should this entail?

H. Meijers-Heijboer. *Erasmus Medical Canter, Department of Clinical Genetics, Rotterdam, The Netherlands*

The organisation of the medical care concerning inherited diseases and its financial reimbursement vary throughout the western world. Medical practitioners, medical geneticists, and/or genetic counsellors may provide these services. Genetic counsellors are health professionals with specialized graduate degrees who have experience in the areas of medical genetics and counselling. Most common specialisations are prenatal, cancer, paediatric and adult genetics. There is a growing demand for genetic counsellors in view of the expending knowledge of the inherited basis of disease. Despite this, only a handful of countries provides formal courses in genetic counselling. Admission requirements for individuals entering training programmes for genetic counsellor differ substantially between countries. Most enter the field from biology, genetics, nursing, psychology, public health and social work. Also, large differences exist between the responsibilities of genetic counsellors in daily clinical practice.

We advocate a master's level training programme specifically designed for genetic counsellors, with a list of core competencies that are shared by all training programmes of genetic counsellors throughout the world.

32 Invited

Population studies of mutation carriers in the Israeli population

Abstract not received.

Wednesday, 22 March 2006 16:00–16:45

POSTER SESSION

Screening

33 Poster

The frequency of breast cancer screening: results of a randomised trial

R. Blamey[1], S. Duffy[2]. [1]*Nottingham City Hospital, Nottingham Breast Institute, Nottingham, United Kingdom;* [2]*UK Co-ordinating Committee on Cancer Research (UKCCCR), UK*

This randomised trial in 110,000 women between 1989 and 1996 compared screening at the standard interval of 3 years (Controls – C) with screening annually (Trials – T), in women aged 50–64 who had undergone a prevalent screen.

A previous analysis used the Nottingham Prognostic Index (NPI) to predict outcomes of the invasive carcinomas diagnosed; these predictions were based on observed survivals in all cancers prior to 1988.

However survival within each NPI group has improved, due to better therapy. Recalculation is based on these new figures of outcomes within each NPI group.

1. Predicted outcomes are compared with observed outcomes at ten years in the table.

Invasive cancer	No. diagnosed		No. predicted surv. at 10 yrs		No. observed surv. at 10 yrs (Act)	
	C	T	C	T	C	T
GPG	92	113	87	108	89	107
MPG	87	96	68	76	66	82
PPG	22	20	11	10	14	14
Total	201	229	166 (82%)	194 (85%)	169 (84%)	203 (89%)

There is good agreement between the predicted and observed 10 year survivals. Neither show significant difference between C and T groups.

2. Predicted outcomes at 20 years: The predicted percent surviving in both groups is 73%.

Conclusion: 1. There is no significant advantage to annual screening over the standard 3 year interval in the NHSBSP and shortening of the screening interval would be extremely expensive

2. Although in the Trial group there were more cases in the GPG and less in the PPG, this was not large enough to significantly improve survival and the absolute difference is 3–5% (Relative Risk Reduction 16–23%) less deaths in the trial group at 10 years.

3. There were the same percentages of DCIS in the two groups.

4. The use of a predictive model for outcomes is justified, prediction to 20 years is of 73% survival in both groups.

34 Poster

Over-diagnosis in screening by mammography: A follow-up of the Malmö Mammographic Screening Trial, MMST

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Over-diagnosis in breast cancer screening occurs when cases detected by screening would never have surfaced clinically in the absence of screening, either because the woman dies prematurely from causes other than breast cancer within the lead time period or by the detection at screening of biologically inert tumours that would not have surfaced clinically even within the normal lifetime of its bearer. Earlier studies on this subject have been based on estimates and statistical modelling. The present study is based on direct observations of the occurrence of breast cancer in the two arms of the MMST during the 10 years of the randomised study and for the following fifteen years.

Methods: MMST was a randomised controlled study of 42,283 women aged 45–69 years at entry, born 1908–32. The screening arm contained 21,088 women and the control arm 21,195. The study started in 1976 and ended in 1986. Hereafter the randomised design was maintained for women still under age 70. In 1990 service screening started through which all women in the age group 50–69 in Malmö were invited to screening. In the fifteen oldest birth cohorts (born 1908–22, 55–69 years at entry) the