

O35 - Comunicación Oral/Oral communication

Cáncer de mama y cáncer de cérvix

Breast and cervix cancer

Sábado 4 de Octubre / Saturday 4, October
9:00:00 a/to 11:00:00

Moderador/Chairperson:
Nereo Signan y Silvia Sanjosé

**"AGE-TIME PHENOMENON" AND RELATIVE RISK PATTERN FOR
BREAST CANCER MORTALITY AMONG ATOMIC BOMB SURVI-
VORS. FOLLOW-UP STUDY**

Tamara Zhunussova*, Masaaki Matsuura**, Norihiko Hayakawa***, Can-
cer mortality and risk patterns among atomic bomb survivors
**Epidemiology, Hiroshima University, Hiroshima, Japan. **Biostatistics, Japanese Foun-
dation for Cancer Research, Cancer Institute, Tokyo, Japan. ***Epidemiology, Hiro-
shima University, Hiroshima, Japan.*

Introduction: Evidence from studies of atomic bomb survivors reveals that the late mortality effects of large, single doses of radiation are focal and largely defined to cancer. Accumulating information derived from the previous investigations on those exposed as children is important for the additional years of follow-up.

Objectives: Due to increased risk of cancer mortality before 1992 we aimed to evaluate the relative risk patterns for breast cancer mortality over time and especially recent 5 years (1993-1997).

Methods: The cohort of 51,532 subjects (21,227 controls and 30,305 exposed) from Hiroshima prefecture was used in the present follow-up study which covers the period from January 1, 1968 till December 31, 1997. To fit the various models to our variables as a statistical method we used Poisson regression analysis by AMFIT in Epicure.

Results: Dose-response relationship based on the linear model showed statistically significant excess relative risks for breast cancer in almost all dose groups > 0.5 Sv. Sharply increased excess relative risk at 1 Sv for female breast cancer shown in 1988-1992 rapidly declined during the period 1993-1997.

Conclusion: There is a strong age-time variation for breast cancer especially for those exposed to radiation at less than 30 years old at the time of the bombing. However further follow-up study in low dose groups is recommended.

471

472

CHRONIC PAIN AFTER MASTECTOMY: LONG-TERM FOLLOW UP OF WOMEN WITH PERSISTENT PAIN

Julie Bruce*, Louise McEvoy**, Neil Scott*, W Cairns S Smith*, W Alastair Chambers**

*Public Health, University of Aberdeen, Aberdeen, UK. **Anaesthesia, University of Aberdeen, Aberdeen, UK.

Introduction: Little is known about the long-term progression and outcome of post-mastectomy pain syndrome (PMPS) in breast cancer survivors. In 1996, a questionnaire survey of 408 women in the Grampian Region who had undergone mastectomy between 1990 and 1995 identified a cumulative prevalence of PMPS of 43%.

Objective: The aim of this study is to assess long-term outcome (7-12 years post-operatively) of this chronic pain cohort to ascertain the natural history of PMPS. **Methods:** The original postal questionnaire was modified and re-administered to 138 of the 175 women who reported chronic pain in 1996. The questionnaire comprised the McGill Pain Questionnaire (MPQ), the University of California and San Francisco (UCSF) Pain Service Questionnaire and SF-36. Body charts were included for participants to indicate location and nature of pain. Chronic PMPS was defined using case-ascertainment criteria used in 1996, based on pain character, location and timing. The MPQ was analysed using three validated methods.

Results: Completed questionnaires were obtained from 113/138 (82%) women. Of 113 women who had chronic PMPS in 1996, 54 were now painfree and 59 had persistent PMPS. The cumulative prevalence of PMPS in this cohort was 52% (59/113), or 14% of the original 408 respondents. Women who reported PMPS at 7-12 years postoperatively were younger (mean age 48.5 years) and heavier (mean weight 70.5 kg) than women whose PMPS had resolved (mean age 56 years, $p < 0.01$; mean weight 63.9 kg, $p < 0.01$). Of the 59 women with persistent PMPS, 45 reported problems using their arm and 24 reported swelling of the arm on the side of surgery. Although pain scores (using Pain Rating Index and Pain Rating Index-Weighted Rank method) did improve over time, this was non-significant. The most common MPQ descriptive terms included stabbing, shooting, nagging, aching, tight and numb. Terms selected were similar to the pain descriptors chosen in 1996 although fewer words were chosen in 2002 ($p < 0.01$). There was no significant improvement in quality of life scores over time except for the physical functioning domain ($p < 0.01$).

Conclusions: PMPS is increasingly recognised as a post-operative complication following breast cancer surgery. PMPS was found to persist in half of our cohort at up to 12 years postoperatively, with younger women particularly at risk of continuing pain.

474

SURROGATE OUTCOMES OF THE THREE FIRST ROUNDS (1995-2001) OF THE BREAST CANCER SCREENING PROGRAMME OF SABADELL-CERDANYOLA

Marisa Baré*, Joan Montes*, Melchor Sentís**, Ramon Florensa***. En nombre del Grupo: Comité Técnico del Programa de Detección Precoz

*Screening Office, UDIAT. CORPORACIO PARC TAULI, Sabadell, Spain. **Breast Imaging Unit, UDIAT. CORPORACIO PARC TAULI, Sabadell, Spain. ***Gynecology And Obstetrics Dep., CORPORACIO PARC TAULI, Sabadell, Spain.

Introduction: Organised breast cancer screening programmes are based on equity and their aim is to reduce breast cancer mortality. Until this reduction can be demonstrated, it is important to monitor and evaluate the entire screening process. The Breast Cancer Screening Programme of Sabadell-Cerdanyola (BCSP), Catalonia, Spain, began on October 1995. The objective was to describe the surrogate outcomes.

Methods: The target population of about 30,000 women aged 50-64 years of the 12 municipalities of the area, were progressively scheduled to have a mammography at the BCSP. Those women with exclusion criteria were excluded and the date scheduled was postponed for those who had had any mammography during the previous 12 months. A descriptive analysis of the surrogate outcome indicators was performed for the three finished rounds, as established by the European Guidelines for Quality Assurance in Mammography Screening (3rd Ed).

Results: The main indicators for the 1st round, 2nd round and 3rd round respectively were as follows:

- Target population: 16,467; 17,831; 30,395
- Corrected target population (without excluded women): 15,771; 17,475; 29,018
- Women invited (% Over corrected target population): 15,981 (97%); 16,818 (94.3%); 27,536 (95%)
- Women with initial screening (% Over invited): 100%; 33.7%; 50.6%
- Women having mammograms in the previous 12 months (% Over corrected target population): 14.1%; 7.7%; 3.5%
- Participating women (% Over women invited): 11,479 (72.8); 14,198 (84.4%); 23,720 (86%)
- Covered women (% Over corrected target population; includes those with mammograms in the previous 12 months outside the BCSP): 86.8%; 94%; 86.3%
- Recall (% Over mammograms): 5.8%; 3.9%; 5.2%
- Open benign biopsy (per 1,000 screened women): 0.17; 0.4; 0.04
- Screen-detected cancers (per 1,000 screened negative): 47 (4.1); 48 (3.4); 66 (2.8)
- Interval cancer (per 1,000 screened women; diag. outside the BCSP in previously participating women): 14 (1.2); 13 (0.9); 28 * (1.2)
- Breast cancers of stage 0 and I at diagnosis: 51.1%; 64.6%; 75%
- Invasive cancers = 10 mm (% Over invasive): 35%; 34.2%; 44.2%
- Conservative surgical treatment: 51%; 75%; 80.3%

* March 2003

Conclusions: The majority of the indicators meet the standards set by the European Guidelines suggesting a reasonably good acceptability of the Programme by women while minimising the adverse effects of screening. Better health care information systems with population coverage and high reliability are needed to assess non-biased indicators.

473

ANTHROPOMETRIC CHARACTERISTICS AND MAMMOGRAPHIC PARENCHYMAL PATTERNS IN NORTHERN GREECE

Elena Riza¹, Isabel dos Santos Silva¹, Bianca de Stavola¹, Efi Karadedou-Zapheiriadou³, Dimitrios Linos⁴, Athena Linos²

¹Cancer & Public Health, London School of Hygiene & Tropical Medicine, London, UK. ²Hygiene & Epidemiology, University of Athens Medical School, Athens, Greece. ³Radiology Department, Hippicration Hospital, Thessaloniki, Greece. ⁴1st Surgical Clinic, Hygeia Diagnostic Centre, Athens, Greece.

Introduction: A cross-sectional study was designed to elucidate the relationship between anthropometric measures and mammographic parenchymal patterns (MPP) in a low breast cancer risk area (Northern Greece).

Methods: A total of 900 postmenopausal, cancer-free screening attendees participating to the Ormylia Mammography Programme were randomly selected. All women come from a general rural population, had one mammogram in 1997/98 and were aged >50 years (mean/SD 58.1 +/-5.9). Information on demographic and socio-economic details, reproductive, gynaecological history were collected using an interviewer-administered questionnaire. A series of anthropometric measurements were performed: body weight, standing and sitting height, minimal waist circumference, maximal hip circumference, chest circumference and breast size. Body build at different points in life was assessed using a set of previously validated pictorial drawings. Body Mass Index (BMI kg/m²) and Waist-Hip Ratio (WHR) were also calculated. MPP were classified using the combined Wolfe classification with P2, DY categories as high and N1, P1 as the low risk group. Odds ratios (OR), 95% confidence intervals (CI) and score tests for trend were calculated for high- relative to low-risk MPP. Multivariate logistic regression models considering several potential breast cancer risk factors were fitted applying a backward and a forward stepwise analysis. Age at first mammogram as a potential confounder was always forced into the models. Likelihood ratio tests for heterogeneity or trend and interaction were calculated as appropriate.

Results: The prevalence of high-risk MPP decreased with increasing weight, BMI, larger body build at various points in life, increasing WHR and chest circumference in the univariate analyses. In the multivariate analyses, the stronger determinants of low risk MPP were large body build at age 18 (OR=0.40, 95% CI 0.18-0.86, $p=0.007$), change to larger body build from age 18 to the present (OR=0.66, 95% CI 0.43-1.03, $p=0.04$) and increasing chest circumference (OR=0.40, 95% CI 0.21-0.64, $p=0.002$) indicating a linear trend. Both BMI and WHR lost significance when chest circumference was entered into the multivariate model. Out of the reproductive factors considered, increasing parity, age at first full-term pregnancy and years since menopause were the determinants of low risk MPP.

Conclusions: Chest circumference is a newly introduced measure of upper body adiposity strongly associated with MPP irrespective of body fat distribution (WHR). Large body build and somatotype changes in adulthood also relate to decreased mammographic density. MPP are a well-established risk factor for breast cancer. These anthropometric factors have never been examined in studies on MPP before. Yet, they are potentially modifiable through changes in diet and physical exercise and could affect a woman's breast cancer risk. Therefore, the conduct of prospective studies monitoring the changes of MPP over time and the manifestation of breast cancer will probably help to confirm the observed associations.

475

IMPROVEMENT IN CERVICAL CANCER PATIENTS' SURVIVAL RATES IN WARSAW, 1989-1996

Magdalena Bielska-Lasota*, Ryszard Krynicki**, Zbigniew Wronkowski*

*Mass Screening Organization Department, M. Skłodowska-Curie Cancer Center, Warsaw, Poland. **Gynaecological Oncology Department, M. Skłodowska-Curie Cancer Center, Warsaw, Poland.

Introduction: Studies on the survivals of cervical cancer patients in Warsaw show that these rates were among the lowest in Europe, although they significantly increased during the period under study. Objectives of this study was to evaluate survivals of patients with invasive cervical cancer in Warsaw, with regard to selected prognostic factors, including data quality.

Methods: The analysis based on historical cohort comprised all cervical cancer cases reported to the Warsaw Cancer Registry (WCR) over the period 1989-92 by submitting the Cancer Reporting Cards (CRC). These data were made complete by adding information obtained from other available medical records. A statistical software SAS was used for the analysis. The 5-year relative survival rates were calculated using the life tables method modified by Hakulinen.

Results: The survival study was performed on 1,481 cancer cases reported to the WCR. The average age of patients was 55 years (20-95). Histological confirmation was available for 96% of the cases. The FIGO stage distribution was: I-26%, II-33%, III-28%, IV-6%, and unknown-7%. The squamous cell carcinoma represented 87%, adenocarcinoma 7% and others 6%. Only 1,046 (71%) of the patients could have their data completed with information obtained from original clinical records. Primary therapies were: surgery 41 (4%), radiotherapy 552 (53%), combined 283 (27%); palliative or symptomatic 170 (16%). The relative survival rate for all the patients was 51%. The rate grew by some 9% over the period and reached 56% in 1996. However, the increase in survival of patients with completed clinical records was less than 2% in relation to 16% in the group analysed only with the use of WCR data. In the group with the completed records, the 5-year survival rates were: stage I-88, II-58, III-25, and IV-3. A survival rate improvement occurred mainly among the FIGO II patients. The low proportion of early stages in Warsaw population reflects poor early detection system. On the other hand, high survival rates in FIGO I, II, and III confirm the good treatment standards. Low population-based survivals in Warsaw depend on the unfavourable proportion of clinical stages and imperfect reporting of cancer cases to the WCR. These facts suggest a higher frequency of unfavourable prognostic factors in the group of patients registered only by the CRC (older age, much higher proportion of unspecified stage).

Conclusions: Poland needs a better early cancer diagnostic system with a population-based screening programme. Its efficiency should be monitored by population-based cancer registries. An appropriate trend analysis also requires simultaneous completion of data by adding clinical information obtained with the use of advanced technology, that has already been implemented.

476

TRENDS IN RADIATION THERAPY WITH BREAST CONSERVING SURGERY IN NEW MEXICO: PRELIMINARY RESULTS

Sue Noell Stone*, Jason Witter**, Meg Adams-Cameron***

*Cancer and Public Health, London School of Hygiene and Tropical Medicine, London, England. **Epidemiology and Cancer Control, University of New Mexico, Albuquerque, USA. ***Cancer Control Program, New Mexico Department of Health, Albuquerque, USA.

Introduction: Treatment choices for women with breast cancer have expanded and breast conservation surgery (BCS) with follow-up radiation (XRT) is now considered appropriate therapy for the majority of women with early stage breast cancer. There is some concern that not all women treated with BCS receive follow-up XRT. The purpose of this study was to assess the accuracy of the New Mexico Tumor Registry's (NMTR) reported use of XRT following BCS, using the Surveillance, Epidemiology and End Result (SEER) program's coding rules, and to document the demographic patterns of follow-up XRT in New Mexico.

Methods: We conducted a telephone survey and medical records review of 352 New Mexican women, identified by NMTR and treated with BCS in 1995-1997. Questions concerned co-morbid conditions, treatment recommendation sources, insurance coverage, education and income. Using chi-square statistics, we compared 1) SEER abstract to patient recall for follow-up XRT and, 2) the characteristics of women who delayed XRT to those who delayed or did not receive it.

Results: We found that many women reported receiving XRT four months after BCS, which in some cases resulted in the XRT being excluded from the SEER abstract. We then compared those women who did not have XRT (n=23, 6.5%), those who did within four months of BCS (n=190, 53.9%) and those who received XRT after four months post-BCS (n=139, 39.5%). Demographic factors such as ethnicity, education and urban residence did not appear to influence use or timing of XRT. We found that although the co-morbid conditions of diabetes (p=.05) and previous stroke (p=.04) may have influenced XRT timing, the number of co-morbid conditions did not (p=.61). As was expected, most women who received XRT did have insurance (95%), and the majority reported having private insurance, including HMO coverage. There was not a statistically significant difference in timing or use of XRT after BCS when we compared insurance types (p=.67) although many women did report that their insurance status did affect their treatment decisions.

Conclusions: This research suggests that women in New Mexico may be receiving XRT within one year of BCS, although much of the follow-up XRT may not be recorded in routine SEER abstracts. It also suggests that further research is needed to understand why some women may delay radiation treatment and how this delay may affect survival and quality of life for breast cancer patients.