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**Young age is a poor prognostic factor in women with stage I breast cancer**

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**Background:** Breast cancer is rare in young women, only 2%–5% are diagnosed at age 35–40 or less. However, in these young patients, breast cancer is associated with poor prognosis. It has been extensively discussed that young age is not an independent prognostic factor, but correlates with more advanced disease stage at presentation and therefore with worse prognosis.

**Objective:** The aim of this study is to investigate how age relates with survival outcome in a restricted group of patients presenting with early stage disease, in order to avoid confounding by advanced stages.

**Material and Methods:** Women who were diagnosed between 1988 and 1997 with histologically confirmed unilateral stage I breast cancer (pT1N0M0) and who underwent lumpectomy or mastectomy with axillary dissection (1–50 nodes examined) were selected from the US Surveillance, Epidemiology, and End Results 9-registries database release 2004. Kaplan-Meier survival estimates were computed as a function of overlapping age intervals from 20 to 95 years. Odds of breast cancer death were computed relative to risk of death from other causes. Multivariate analysis of overall survival (OS) and breast cancer specific survival (BCSS) in patients <45 years included tumor size, location, number of examined lymph nodes, histology, grade, hormone receptor status, marrital status, race, registry area, year of diagnosis, type of surgery, and radiotherapy as covariates.

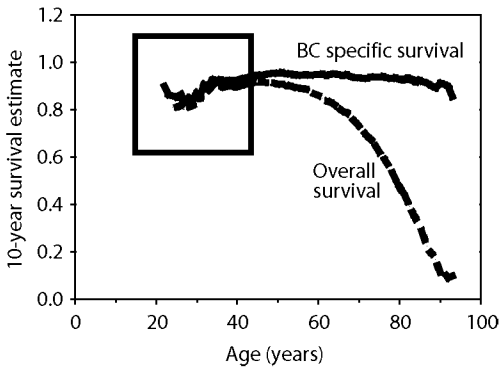


Figure 1.

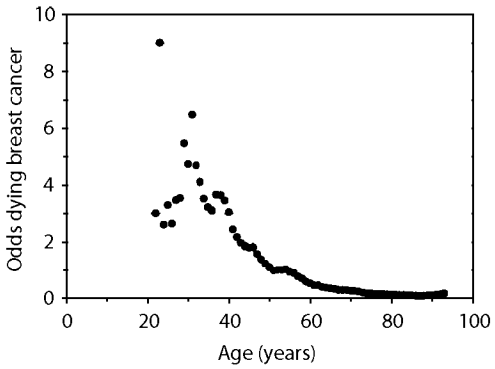


Figure 2.

**Results:** There were 47,590 records available. The OS (Figure 1: dashed curve) showed a biphasic shape, with decreased 10-year OS from 90% to 80% in very young patients (<35 years) and in older patients (>60 years). As an example, the 10-year OS probability of a 30-year old patient (85%) is equal to that of a 60-year old patient, indicating a considerably reduced life expectancy in these young patients. In line, the BCSS (Figure 1: solid curve) closely parallels the OS in patients <45 years, showing that the reduced life expectancy in young patients was almost entirely attributable to breast cancer. Considering the odds of death, the risk of dying from breast cancer outweighed the risk of dying from any other cause in young patients (odds 2–9 in patients <45 years, Figure 2). Multivariate analysis by OS outcome showed a hazard ratio (HR, adjusted by other covariates) for age of 1.03, i.e. 3% relative increased risk of death *per each year* younger than 45 (P = 0.006). By BCSS outcome, the HR was 1.05, i.e. 5% relative increased risk of BC death *per each year* younger than 45 (P = 0.0001).

**Discussion:** Breast cancer represents a severe disease burden in young women diagnosed with early stage breast cancer. Conventional prognostic factors are insufficient to account for the poor prognosis associated with young age. We argue that molecular signatures are required to investigate the biological mechanisms underlying breast carcinomas occurring in different age groups.

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**The psychosocial issues related to gestational breast cancer**

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**Introduction/Background:** Very little has been reported about the psychosocial issues for women diagnosed with gestational breast cancer (GBC). During our recent review of GBC cases in Western Australia it became apparent that these women had some psychosocial issues that were unique to them. The aim of the study was to describe the psychosocial issues that affect young women diagnosed with GBC.

**Methods:** Qualitative data was collected using semi-structured face-to-face interviews. To access women living in rural areas telephone interviews were undertaken. Three groups of 15 women all aged <45 years when diagnosed with breast cancer were randomly selected from the WA Cancer Registry. One group were women diagnosed with GBC; groups two and three were women who did or didn't become pregnant after their diagnosis of breast cancer. An additional group of 15 new mothers was identified from the WA Midwives Notification System.

Informed consent was obtained prior to the interview. The interviews were audiotape recorded and transcribed verbatim. During the interviews, the researcher sought to identify any psychological and social issues related to the experiences of women diagnosed with breast cancer and/or during pregnancy. Areas of interest included: psychological well being, adaptation to mothering, physical and mental coping mechanisms used; formal and informal support structures; breast cancer treatment and outcome issues; fertility and contraception issues; pregnancy events; dealing with illness and a young child. The transcribed interviews were transferred to QSR NVIVO. Data was analysed by three researchers using thematic analysis consistent with this explorative qualitative research design.

**Results:** Each woman has different information needs. Contraceptive advice was important. Unbiased advice on fertility issues was needed. Close relationships remained intact in the short term, but a number of relationships collapsed following disease recurrence. These women were determined to stay alive and with their children. There, however, appeared to be a lack of formal support to help these women stay at home with their children.

**Conclusion:** Young women diagnosed with breast cancer want an unbiased view of their management and fertility options. This is so they can choose the option that suits their priorities at that point in time

## Thursday, 23 March 2006 16:00–16:45

POSTER SESSION

# Pathology

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**Immunophenotype similarity and high frequency of co-existence of columnar cell lesions, lobular neoplasia, and low grade DCIS with invasive tubular carcinoma and invasive lobular carcinoma**

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**Aim:** To determine the immunophenotype and the frequency of association between putative precursor lesions involved in the development of some types of breast carcinoma.

**Method:** 127 successive low grade breast tumor cases were reviewed by 3 pathologists for the presence of invasive and pre-invasive lesions including pure tubular carcinoma (TC, G1; n = 54), tubular carcinoma mixed type (n = 10), invasive lobular (ILC) classic type (n = 56), tubulolobular carcinoma (n = 7), columnar cell lesions (CCL), usual epithelial hyperplasia (UEH), ductal carcinoma in situ (DCIS), and lobular neoplasia (LN).