

Age Pattern of the Occurrence of Breast Cancer in the Northwest of Iran

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Introduction

Breast cancer represents 27% of the cancers and 19% of the cancer deaths in women. Background The highest incidence of breast cancer occurs after age 35, with 83% of the cases occurring after age 50 and only 1.5% under the age of 30. However, Asian patients (including Iranian females) are about one decade younger at diagnosis compared to the patients in developed countries. The proportions of young patients (i.e., 35 years or less) vary from about 10% in developed countries to 25% in developing Asian countries indicating a poorer prognosis in the region.

Purpose

The aim of this study was to document the age pattern of the incidence of breast cancer in Iranian female population in the northwest of country.

Methods and patients

The study subjects were 1764 patients diagnosed/registered in the six university clinics/hospitals between 1988 and 2008. Total female population of the area was obtained from the regional and national Bureau for Vital Statistics. Descriptive statistics, survival model and occurrence of breast cancer by birth year were calculated for the study population. Ninety five percent confidence intervals (CI 95%) were calculated to assess the statistical significance of the data.

Results

The highest rate was observed in 1950-59 birth year cohorts (284.38 per 100000 female populations, CI95%: 260-310). This rate was statistically significant comparing to the similar rates of other birth cohorts. Occurrence of breast cancer (per 100000 female populations) by birth year cohorts in three different age groups (2-40, 41-60 and 61+ years) was investigated in this study. The highest rates were observed in 1931-40 (for 20-40 years), 1951-60 (for 41-60 years) and 1961-70 (for 61 and more years).

Discussion

This study revealed that the mean age of occurrence of the breast cancer in northwest Iran is 42-49.4(45.2+/- 3.2) years, although this is near to other studies, but notes that the mean age had not changed in recent 20 years.

Conclusion

No significant difference was found between the mean ages at diagnosis of breast cancer from 1988 to 2008.