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Early pregnancy and risk of breast cancer in women of north east India

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ABSTRACT
Cancer is currently the cause of 12% of all deaths worldwide. The number of cancer deaths annually will increase from about 6 million to 10 million. Breast cancer is the most commonly diagnosed cancer in women worldwide, with nearly 1 000 000 new cases diagnosed per year, and the second leading cause of cancer deaths in women worldwide. The causes of breast cancer remain largely unknown, but certain reproductive and hormonal factors are clearly related to risk. It is reported that one in 22 women in India is likely to suffer from breast cancer during her lifetime. The medical records of 200 patients treated at the Mahavir Cancer Institute and research Centre for breast cancer between 2005 and 2008 with perspective age of first pregnancy and menstrual status were reviewed. In present study we can observe that breast cancer cases were more found in pre menopausal women i.e.: 59 % than post menopausal women i.e.: 41%. Most women of the study were belonging to low socieo-economic status from rural area. They have average first pregnancy on 17.95 years of age. Thus it is concluded that early pregnancy having no protective role in breast cancer but they develop breast cancer in early age.

Introduction

Cancer is currently the cause of 12% of all deaths worldwide. The number of cancer deaths annually will increase from about 6 million to 10 million. Breast cancer is the most commonly diagnosed cancer in women worldwide, with nearly 1 000 000 new cases diagnosed per year, and the second leading cause of cancer deaths in women worldwide. The causes of breast cancer remain largely unknown, but certain reproductive and hormonal factors are clearly related to risk. It is reported that one in 22 women in India is likely to suffer from breast cancer during her lifetime. Generally breast cancer cases were more likely reported with a family history of breast cancer, later age at first full-term pregnancy.

The only factor known to consistently decrease lifetime breast cancer risk regardless of ethnicity is early childbirth (Henderson et al.1974 & Kelsey et al. 1993). Women who have undergone a first full-termpregnancy/birth (FFTB) before 20 years of age have a 50% reduced lifetime risk of developing breast cancer when compared with nulliparous women (MacMahon et al. 1970), whereas first full-term births over 35 years of age lead to an increased risk of developing breast cancer (Trichopoulos et al. 1983).

Present study illustrate that early marriage and early child birth will not reduces risk of breast cancer.

Materials and Methods

The medical records of 200 patients treated at the Mahavir Cancer Institute and research Centre for breast cancer between 2005 and 2008 with perspective age of first pregnancy and menstrual status were reviewed. Approval for this study was obtained from the institutional ethical committee of the Mahavir Cancer Institute and research Centre. Only patients with breast cancer were included in this study.

Patients were evaluated for their residential place, age of first pregnancy, menstrual histology, grade according to International Federation of Gynecologists and Obstetricians (FIGO) stage. All patients were staged according to the FIGO staging system.

Results

In present study we were observe that breast cancer cases were more found in premenopausal women i.e.: 59% than post menopausal women i.e.: 41% (Text figure: II), which is very reversed than general trend found in developed country. Mean age of patients with breast cancer were 46.53 years. This indicates that breast cancer was reported in early ages also. Mean age of first Pregnancy were 17.95 years (Table: I; Text figure: I). most of them undergone early marriage also. Most of these patients were belonging from low-socio economic status.

Discussion

The patterns of risk associated with reproductive history suggest that prolonged exposure to ovarian hormones increases breast cancer occurrence (IARC; 2001 & Ponder; 2001), Women with irregular or longer cycles and those with anovulatory cycles spend relatively less of their reproductive years in luteal phase; thus, they might be expected to have a lower risk of breast cancer (IARC; 2001 & Ponder; 2001). In particular, women having a first child before 20 years of age have a 50% reduction in lifetime breast cancer risk when compared with women who do not have children (Kara et al; 2007). Our study illustrate that mean age of first pregnancy was 18 years while breast cancer is reported in these patients. Menstrual Factors plays significant role in Breast Cancer Risk, early menarche and late menopause were risk factor for breast cancer, post menopausal women having higher risk of breast cancer (Linda et al; 1998). While present study illustrates that in North-East India most of cases were found in premenopausal women which do not support western data.

Thus in North-East India most of breast cancer cases were reported in premenopausal women. They have average first pregnancy at the age of 18 years. It is evident from study that early marriage does not reduce chances of breast cancer in women. Thus it is concluded that early pregnancy having no protective role in breast cancer but they develop breast cancer in early age.

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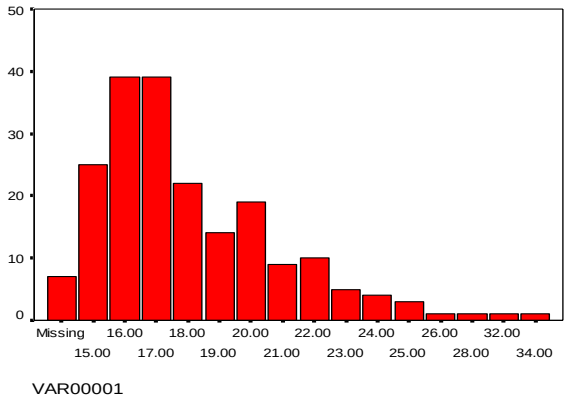
Table: 1

Test Statistics	Value
Chi-Square	191.171
df	14
Asymp. Sig.	.000

P Value for age of first pregnancy: 0.000 (Highly significant)

Text Figure: I, showing age of first pregnancy in breast cancer patients



Test Figure: II: showing menstrual history and breast cancer

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