ABSTRACT

The upward trend in breast cancer globally and in India has become a matter of great concern. Breast cancer is the most common malignancy among women globally. The objective of the authors’ study was to explore the various risk factors of breast cancer in among women in an Indian context. A search was performed using the search engine Pubmed during years 2005-2011 using key words risk factor and breast cancer and India. They searched criteria found 16 final analyzable articles. Results of the review showed high mortality due to late stage breast cancer diagnosis as women usually present at an advanced stage. The results showed that the predominant reason was because of lack of awareness about the risk factors of breast cancer and non-existence of breast cancer screening programs. Financial and social reasons were other factors that resulted in delay in seeking advice for this problem resulting in its delayed diagnosis. Educational awareness might be an effective tool for modifying lifestyles and thereby reducing breast cancer risks.

Keywords: Breast Cancer, Cancer, Educational Awareness, India, Risk Factor

BACKGROUND

The world cancer report issued by International Agency for Research for Cancer (IARC) shows that cancer rates are set to increase at an alarming rate globally. Cancer rate could increase by 50% and to about 15 million new cases in year 2020. Breast cancer related death range to about 555 of all new cases each year in low and middle income countries (Marwah et al., 2010). In India cancer prevalence is estimated around 2.5 million and over 0.8 million new cases and 0.5 million deaths occurring each year. The main and the most common sites of
cancer in India include (a) oral cavity, (b) lungs, (c) esophagus and (d) stomach in males (Datta & Baridalyne 2008). According to National Cancer Registries and Regional Cancer Centre breast cancer is the most common cancer among women (Attam et al., 2008). Breast cancer is a malignant tumor and is second most leading disease in women. There are several types of breast cancer, but some of them are quite rare. In some cases a single breast tumor can be a combination or be a mixture of invasive and in situ cancer. Ductal carcinoma in situ (DCIS; also known as *intraductal carcinoma*) is the most common type of non-invasive breast cancer. DCIS means that the cancer cells are inside the ducts but have not spread through the walls of the ducts into the surrounding breast tissue. About 1 in 5 new breast cancer cases will be DCIS. Nearly all women diagnosed at this early stage of breast cancer can be cured. A mammogram is often the best way to find DCIS early. Invasive ductal carcinoma is the most common type of breast cancer and about 8 of 10 invasive breast cancers are infiltrating ductal carcinomas. Presently 75,000 new cases occur in Indian women every year (Marwah et al., 2010). The increase reported by the cancer registries is nearly 12% from 1985-2001 representing a 57% rise in India’s cancer burden (Paksereht Seta, 2009). In India, breast cancer incidence rates are approximately 100% higher among urban women than among rural women. The incidence rates in urban population range from 25-30 per 10,000 women (Mathew et al., 2009). The age adjusted incidence rate in India is 22.9 per 10,000 populations, whereas in North America it is nearly 76 per 10,000. Mortality from breast cancer in India ranges to 11.1 as compared to 14.7 in USA (Chauhan et al., 2011). A 2005 study conducted by International Association of Cancer Research based on Lyon, France projected that there would be 250,000 cases of breast cancer in India by 2015 a 3% increase per year currently. In the present scenario India reports roughly 10,000 new cases annually & 1 in 26 women expected to be diagnosed with breast cancer in their lifetime. Undoubtedly breast cancer will become an epidemic in India in another 10 years, if the current status of detection continues (Jaroli, 2010).

The etiology of breast cancer is multifactorial and various risk factors have been postulated. American Cancer Society has estimated that about one quarter of breast cancer cases can be accounted by known risk factors such as diet, lifestyle, age and physical activity. It is suggested that physical activity strongly helps to decrease the risk of breast cancer among pre and postmenopausal women (Karabi et al., 2009). Diet is the most important etiological factor for breast cancer in Indian population. Evidence that diet high in vegetable and fruit decrease the risk of various cancers such as mouth lung, liver and breast. Few studies have been undertaken in India on association between these micronutrients and risk of breast cancer (Singh et al., 2005).

Along with these cancer prevention program should emphasize the provision of factual information about cancer and cancer screening behaviors as inaccurate beliefs about cancer may inhibit change in health behavior. It was felt that women cancer screening practices must be reinforced and also women must be educated to practice recommended age appropriate breast cancer screening (Priyanka et al., 2010).

The objective of our study was to explore the various risk factors of breast cancer in among women in an Indian context.

**METHODS**

**Source of Information**

Information was searched from web (http://www.ncbi.nlm.nih.gov/pubmed) Indexed between years 2005-2011. For obtaining relevant articles following keywords or search term were used in single or in combination: *risk factor and breast cancer and India*. Summary of reference of the selected studies were retrieved from PubMed and then abstract of each of those articles were read systematically for further screening.
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