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Breast Cancer Awareness in India

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Mini Review

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Abstract

Breast cancer is the most common cancer worldwide representing nearly a quarter (23%) of all cancer in women. The incidence of breast cancer is on a rising trend in India and disproportionately higher mortality due to detection of breast cancer at advanced stage due to lack of awareness and early diagnosis and treatment. The vast majority of breast cancer patients undergo inadequate and inappropriate treatment due to lack of high quality infrastructure and sometimes skills and above all financial resources. In India health care facility pattern is heterogeneous, with various regions of it where the knowledge of breast cancer, benefits of awareness, early diagnosis ,and multidisciplinary treatment programs have not reached. Awareness for breast cancer is more in educated women so education is instrumental in changing the attitude towards breast cancer.

Keywords: Breast Cancer; Early Detection; Epidemiology; Incidence; Quidelines; Screening Programs; Locally Advanced Disease; Health Care Infrastructure

Introduction

Breast cancer is the most common cancer worldwide representing nearly a quarter (23%) of all cancer in women [1,2]. The incidence of breast cancer is on a rising trend in India and disproportionately higher mortality due to detection of breast cancer at advanced stage due to lack of awareness and early diagnosis and treatment [3,4]. Breast cancer is the commonest cancer of urban Indian women and the second commonest in the rural women. Due to lack of awareness of this disease and in absence of a breast cancer screening program, the majority of breast cancers are diagnosed at a relatively advanced stage. The quality of care available for breast cancer patients varies widely according to where the patient is treated, The vast majority of breast cancer patients undergo inadequate and inappropriate treatment due to lack of high quality infrastructure and sometimes skills and above all financial resources. The recent emphasis should be on health education about breast cancer, early diagnosis of cancers and more public facilities for cancer treatment much needed for improvement in breast cancer care in India.

India is a country with wide cultural, ethnic, religious and economic diversity with there is variation in health care infrastructure. In India health care facility pattern is heterogeneous, with various regions of it where the

knowledge of breast cancer, benefits of awareness, early diagnosis, and multidisciplinary treatment programs have not reached. The numerous myths and ignorance that prevail in the Indian society results in an unrealistic fear of the disease. Breast cancer awareness programs are more concentrated in the cities and have not reached the remote and rural part of the country. Women often do not present for medical care early due to various reasons such as illiteracy, lack of awareness, and financial problems. It is hardly surprising that the majority of breast cancer patients in India are still treated at locally advanced and metastatic stages [2,3]. Due to lack of an organised breast cancer screening programs, paucity of proper diagnostic aids, and general indifference towards the health of females in the Indian society do not help early diagnosis of breast cancer. To treat breast cancer a multidisciplinary approach to breast cancer treatment that is available only at a few select regional centres. Awareness for breast cancer is more in educated women so education is instrumental in changing the attitude towards breast cancer. Doctors, especially gynaecologists, may play a very important role in creating awareness of breast cancer and its risk factors as majority of the women first approaches to female doctor for the breast cancer associated symptoms she experienced.

Epidemiology and Demography of Breast cancer in India

Breast cancer is the commonest cancer in women worldwide with a widely variable incidence between countries and regions. Over 100, 000 new breast cancer patients are estimated to be diagnosed annually in India [2,5]. As per ICMR-PBCR data breast cancer is the commonest cancer among women after cancer of uterine cervix [6]. The incidence of this disease has been consistently increasing. The rise in incidence of 0.5-2% per annum has been seen across all regions of India and in all age groups but more in the younger age group (<45years) in general breast cancer has been reported to occur a decade earlier in Indian patients compared to their western counterparts. The average age of breast cancer patients has been reported to be 50-53 years in various population- based studies done in different parts of the country [6]. Young age with breast cancer has seen associated with larger tumor size, higher number of metastatic lymph nodes, poorer tumor grade, low rates of hormone receptor-positive status, earlier and more frequent locoregional recurrences, and poor overall survival rates [4,7].

Reproductive History and Life Style

Early age of marriage, early pregnancy, multiple childbirths and breastfeeding of all children for a long period of time is common in most Indian societies. However urban educated class is moving away from this trend, they prefer late marriage, late age of childbirth and little or no breastfeeding due to changing social values, due to job demand of working women. These changes may be partly responsible for the increasing trend of breast cancer incidence in urban population. Life style also important factors which increase the risk of cancer development by altering the breast physiology, processes and functions. These are also factors which can be altered to decrease the risk of cancer. Certain hormones such as oestrogen and progesterone play an important role in the development of cancer. Oestrogen promotes cell growth and progesterone causes cell maturation and stabilisation. It is in the growth phase that the cell undergoes malignant transformation that is cancer formation occurs. Therefore, factors such as early menarch, late menopause, HRT (Hormone replacement therapy), alcohol, obesity, lack of exercise and stress because increased oestrogen exposure and increase chances of developing breast cancer. Women who had undergone IVF therapy for pregnancy also have more tendency to develop breast cancer because of increased exposure to hormones. Smoking is an important risk factor for developing cancer, So a healthy stress free lifestyle, timely pregnancy, adequate lactation and abstinence from Tobacco and alcohol are certain measures which can definitely decrease the incidence of breast cancer.

Familial and Genetic Breast Cancer in Indian Women

Almost a third of all breast cancer patients are believed to have familial disease pattern, and some 5% are believed to be hereditary, with BRCA1 and BRCA 2 gene mutations having been identifies as the major genetic causes. If someone inherits such a gene, the chances of developing breast cancer are 80% and ovarian cancer is 40% in lifetime. Therefore, ascertaining such women who have such significant family history and taking necessary action become very important. The presence of the hereditary component in our's country's population is not known yet. In U.S., this hereditary breast cancer varies from 12-20% of the total breast cancer cases. According to one study, this component is speculated to be around 30% contributing to increase incidence of breast cancer in our country. But Genetic

screening and diagnosis is not routinely performed in most Indian center due to paucity of funds and facilities.

Association of Religion with Breast Cancer

Indian society mixture of numerous races and religions, which results in substantial variation in lifestyle pattern and customs followed by individual of different religious faiths. It was observed that in Mumbai breast cancer incidences rates are highest among Parsi and Christians and lowest among Jains and Buddhists. The possible reasons for high breast cancer incidence in the parsi community are their westernized lifestyle, consanguineous marriages and late age of marriage and childbirth [8].

Detection of Breast Cancer in India

Almost all Indian breast cancer patients self-detect their disease at a stage when it presents with a palpable lump, or even at a stage when it has resulted in secondary changes like skin changes, nipple discharge, retracted nipple, pain in breast, or chest wall changes or distant metastasis and its associated symptoms [9]. A combination of many factors seems responsible for this late stage of detection. These include lack of awareness about the disease resulting in few women following self-breast examination or opting for a periodic examination by a healthcare worker OPR mammography for breast cancer screening. Even after detecting an abnormality such as lump etc are not associated with pain or other troublesome symptoms. Inadequate diagnostic facilities at the peripheral community health centres near to a woman's home act as a deterrent from seeking specialist advice. They have problems with traveling long distances, and substantial expenditure on transportation and professional fees. There is lack of governmental or nongovernmental support for screening, diagnosis, and treatment cost is another major deterrent in getting timely advice and treatment. Diagnosis at advanced stages of disease contributes to the high mortality rate among women due to breast cancer, which can be attributed to low levels of awareness, cumbersome referral pathways to diagnosis, limited access to effective treatment at regional cancer centres and incomplete treatment regimens with the rising breast cancer incidence in India and disproportionately higher mortality, it is essential to understand the level of cancer literacy, especially since the average age at diagnosis is around 10 years younger than western counties [3-5,10-12]. An assessment of existing levels of cancer awareness is a pre-requisite for planning comprehensive health programmes, early detection and treatment compaign, those effectively engage communities of women [13]. Despite long standing national programmes, such as the National cancer control Programme launched in 1975, under the National Programme for Cardiovascular disease, diabetes, cancer and stroke(NPCDCS) launched under the 12th five year plan from 2012-2017 to increase awareness and early detection behaviours, the mortality rates for breast cancer continue to rank the highest in the country, Barriers such as 'Low cancer awareness ' also referred to as 'Awareness deficit" among women, the presence of stigma, fear, gender inequity and reduced engagement in screening behaviours such as self-breast examinations[4,14,15].

Breast Cancer Screening in India

There is no National or regional breast screening program exists in India. At present, a dedicated breast cancer screening by clinical breast examination or mammography is not available outside research studies at a few institutions or to women self-presenting to specialist hospitals to have these services provided for a free. Mammography is available in a large number of public and private hospitals in almost all towns as diagnostic services, which also provides a means for opportunistic screening for women willing to pay for it. Mammography is not advocated for mass screening, and it is generally felt that it may not be cost effective in India [16]. Under the various public health initiative, such as "HEALTH FOR ALL " and the NATIONAL RURAL HEALTH MISSION, emphasis is put on breast awareness and breast self-examination as a first step towards creating the ground work for a nationwide breast cancer screening program. Breast cancer awareness and periodic breast self-examination are being promoted for early detection of breast cancer through print, electronic media, as well as through health personnel in various settings.

Breast Cancer Awareness Programs

In India, the city of Mumbai, an innovative way of promoting breast cancer awareness is available by way of a door-to –door mobile services to those who have registered with area coordinators for the non-governmental organization (NGO). "HELPING HAND 4 CANCER CARE". The check-up and consultation together cost approximately 100 rupees a year. Numerous non -governmental charity organizations lend a helping hand to breast cancer patients in coping with suffering of treatment and lifestyle issues after treatment. The Prashanti Cancer Care Mission Pune, the Cancer patients

Aid Association (CPAA) Mumbai are other such organisations. Manipal Hospital Bangalore runs a breast cancer awareness and screening program. Another helpline for breast cancer is run by the Indian society of Medical and Paediatric Oncology (ISMPO) in Pune, which provides information and support to breast cancer patients. Other such organization THE SGPGI Breast Health Initiative involved with screening, early detection, patient and doctors education and also in collaborative multicentre research to attempt deriving socially and culturally acceptable and cost-effective solutions for the local problems.

In the coming years, most important steps needed are creating awareness about breast cancer risk factors, early detection, along with making screening available to the populations who are at increased risk of breast cancer and providing multimodality treatment available to the majority people in affordable cost.

The recent emphasis by governmental agencies, institutions and non-governmental and charity organizations on improved health awareness, promotion of early detection, providing comprehensive multimodality treatment in a protocol based manner and providing support for breast cancer management as well as for screening and rehabilitation have resulted in an improving trend with more early stage cancers being diagnosed and treated timely, resulting in improving survival and quality of life of Indian breast cancer patients. SBI Life insurance recognised the need for both creating awareness among women and the need for financial preparedness. To this end, SBI LIFE has launched a unique campaign called 'THANK A DOT' supported by women's cancer initiative –Tata Memorial Hospital. The objective of this initiative is to educate women about breast cancer, encourage them to carry out regular self-examination and most importantly, help them understand what a lump really feels like. Recently to the Indian government's credit, initiatives have been undertaken to expand access to screening for breast cancer. Under AYUSHMAN BHARAT, health and wellness centres have screened 54lakh people of breast cancer. Meanwhile, efforts are underway to promote the health benefits of breastfeeding-a practice associated with a lesser risk of breast cancer in later life.

Summary

Indian women need to be aware of both modifiable and non-modifiable risk factors for breast cancer to adopt appropriate practices for prevention. There is urgent call for more effective nation and state wide cancer literacy programmes, as well as engagements with community level organisations and health system [17]. With the wide variation in the state level burden, a coordinated, intensive health promotion intervention programmes on risk factors, prevention, screening ad management for the breast cancer is prudent. Training on the latest evidence regarding breast cancer risk factors should be offered to healthcare providers and community workers to raise their cancer literacy so they can then transmit this knowledge to other sections of the society. Continuing medical education programmes with enhanced emphasis on breast cancer in the curricula of nursing at institutional level and other healthcare training institutions should be a priority for women's health in the country.

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