

# Advances in Breast Cancer Treatment and General Masses in Developing Countries

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## Short Commentary

Breast cancer is the most common malignancy in women and a major public health concern worldwide. Breast cancer at present has surpassed carcinoma cervix, ovarian and uterine tumors in developing countries [1]. The incidence as well as cancer-related deaths are increasing globally. In 2018, 2.1 million new cases were diagnosed, and 0.627 million patients estimated to die worldwide [1]. This respectively corresponds to 11.6% newly diagnosed cancers and 6.6% deaths of all cancers [2]. The estimated number of incidences of breast cancer in India in 2016 was 0.118 million [3]. Breast cancer incidence rate is increasing in developing countries due to changes in lifestyle, alcohol consumption, sedentary activities, dietary habits (saturated fat), obesity, exposure to ionizing radiation, hormone replacement therapy (HRT), and delay in childbearing. It is involving the large female population irrespective of age, parity, socioeconomic status, and other risk factors [4]. Hereditary and genetic factors account for 5 - 10% of breast cancer [5]. Sporadic breast carcinoma is also in increasing trend as compared to familial cancer. Breast cancer developed at a younger age is more aggressive, poorly differentiated, and more likely to metastasize. Younger-age patients tend to be triple-negative (ER, PR, HER 2 NEU negative) and the prevalence of triple-negative breast cancer in India is considerably higher compared with that seen in western countries [6].

Mammography is still a cost-effective tool for screening breast cancer. Since the last decade, we can see the advancement in breast imaging like MRI, elastography, PET scan, and stereotactic localization. Further, there is advancement at the molecular level in the form of tumor markers, immunohistochemistry, and genetic mapping. The tumor markers CEA and CA 15.3 are currently used in clinical practice for monitoring therapy [7]. The treatment of breast cancer is showing a paradigm shift from more radical to less invasive [8]. In this scenario, breast conservation surgery is showing encouraging results with the support of newer adjuvant therapy. Reconstruction surgery is also being opted for by many [8, 9]. The recent data is showing better tolerability and response rate with the taxane-based chemotherapy [10, 11]. The newer trends in radiotherapy are also presenting a better

response with lesser complications [12]. Recently, advancement in hormonal and immunotherapy has been noticed with a better disease-free survival rate [13]. Although much advancement has taken place in the treatment of breast cancer, the crux of successful treatment still depends on its early diagnosis. Studies have reported a better disease-free survival rate when the intervention is in the early stage of breast carcinoma [14].

In developing nations like India, it is difficult to make an early diagnosis. As we know, a high percentage of the female population in developing countries is uneducated, living with social inhibitions, ignorant, and unaware of the disease and its advancements. At the same time, in most developing countries better health facilities, screening, counselling, and awareness are lacking at a semi-urban and rural level due to the non-availability of desired funds. Thus, the problem needs to be tackled by the multi-approach active participation of public, health care providers, and state and non-state funding agencies. More specifically, the advancement in breast cancer and its benefits to the population should go side by side.

In the present era of advancement, the responsibility of the health care providers has increased. The main concerns are lack of health facilities, lack of awareness, absence of screening programs, and un-affordability by the general population. Implementing policies effectively dealing with these issues will certainly reduce morbidity and mortality and the fruits of the advancement in breast cancer can reach the masses [15].

## Conflict of Interests Statement

The authors declare no conflict or competing interest with respect to the authorship and publication of this article. The authors have no financial relationship with any organization.

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