# Awareness about breast cancer in males in urban area of Delhi

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#### Abstract

**Background:** Breast cancer in males is still an issue that is not known to majority of the population across the globe. People in general are not aware that breast cancer can occur in males too as increasing campaigns are done to raise awareness in females. **Objective:** To assess the level of awareness of male breast cancer (MBC) in males of urban population residing in the Soami Nagar colony, Panchsheel, New Delhi. **Methodology:** A cross sectional survey was conducted through a self-administered questionnaire to know the awareness of the occurrence of MBC, its diagnosis and criticality. **Results:** It was found that only 19% of men were aware of the fact that breast cancer can occur in males as well and remaining 81% were ignorant. **Conclusion:** Because a whopping 81% of the surveyed population did not know that breast cancer could even occur in males, they were made aware about all the symptoms to look for and not to ignore any sort of bulge/lumps/knots that they may feel in their breast region or under the armpits. Findings of this study would serve as a baseline to focus on making people aware of this life threatening problem. Increased awareness of MBC would help males to discuss the problem in initial phase and reach out to primary health care physicians for early diagnosis and treatment.

**Keywords:** Awareness, criticality, lifestyle, male breast cancer

# Introduction

Breast cancer is the uncontrolled proliferation<sup>[1]</sup> of abnormal cells in the breast region. These uncommon/abnormal cells usually cluster to form a tumor. It can spread to other places through blood in case of malignant tumors or stay at the same place and multiply as in benign tumors.<sup>[2-6]</sup> Breast cancer occurs predominantly in women, it can occur in males as well. Men have a small amount of breast tissue than women. The "breasts" of an adult man are similar to the breasts of a girl before puberty.<sup>[7]</sup> In girls, this tissue grows and develops, but in men, it doesn't. Since it is still breast tissue, men can also get breast cancer.

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# **Manifestations**

Breast cancer is mostly caused in females, its number in males is also on the rise.<sup>[8]</sup> It is rare for a man of age under 35 to suffer from breast cancer but the chances increase with age, the most common period of occurrence is at the age of more than 60. It commonly starts in the glands that make breast milk (lobular cancers).<sup>[9]</sup> Breast cancer in men is quite rare and less than 1% of all breast cancers occur in men. In 2019, about 2,670 men are expected to be diagnosed with the disease.<sup>[10]</sup> For men, the lifetime risk of being diagnosed with breast cancer is about 1 in 833.<sup>[10]</sup> The occurrence of breast cancer has been reported in males aged between 5 and 93 years, with a peak at approximately 71 years. It was noted that the incidence of MBC increased by 26% from 1973 to 1998.<sup>[11]</sup> In central African countries, a substantially higher proportion of MBC cases (6–15%) have been reported.

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#### Causes

It is not clear what causes male breast cancer (MBC). Doctors know that MBC occurs when some breast cells divide more rapidly than healthy cells do. The accumulating cells form a tumor that may spread (metastasize) to nearby tissue, to the lymph nodes, or to other parts of the body.<sup>[12]</sup> One study found that serum levels of estradiol and estrogen were higher in MBC patients.<sup>[13]</sup> Obesity doubles the risk of developing MBC.<sup>[14]</sup> Environmental factors include increased risk for certain occupations, such as men employed in workplaces with chronic heat and radiation exposure and electromagnetic fields, which is supposed to suppress testicular function.<sup>[15]</sup> Other elements that have been found to cause breast cancer include drugs, head trauma (by increasing prolactin production), local chest trauma, smoking, history of rapid weight gain, or amphetamine use.<sup>[16]</sup> A family history of breast cancer, in man or woman, is certainly a risk factor. A family history of breast cancer confers a relative risk of 3.98,<sup>[17]</sup> and 20% of men with breast cancer have a first-degree relative with the disease.[18-29] Hence, maintaining a healthy body and a healthy mind is the prime concern in order to avoid breast cancer.

Another study done in 2019 has shown that MBC is different than female breast cancer as MBC is positive for hormone receptor including androgen receptor. Mutation in *BRCA2* germline prevalence is likely associated with MBC.<sup>[30]</sup>

#### **Symptoms**

The most common clinical sign of breast cancer onset in men is a painless palpable subareolar swelling.<sup>[26]</sup> Other symptoms may include involvement of nipple with retraction and/or ulceration and/or bleeding, axillary lymphadenopathy, and gynecomastia.<sup>[31]</sup> Some of the other common symptoms include a lump felt in the breast, nipple pain, an inverted nipple, nipple discharge (clear or bloody), sores on the nipple, and areola or enlarged lymph nodes under the arm.<sup>[32]</sup>

Earlier diagnosis could make a life-saving difference. With more research and more public awareness, men will learn that—just like women—they need to go to their doctor right away if they detect any persistent changes to their breasts.

#### Methodology

In order to know that how many men actually knew about that breast cancer that can occur in males in urban population, a cross-sectional survey was conducted among the randomly selected 100 male residents of Soami Nagar colony, Panchsheel, New Delhi after seeking consent from the Residents Welfare Association (RWA) by self-administered questionnaire consisted of two parts. One part comprised a series of personal detail questions and the other part consisted of close-ended questions with "yes or no" to know their awareness on MBC. These questions were aimed to extract information from the respondents about their knowledge on the awareness about MBC, their alertness about it, for example, if they are examining their breasts regularly or not, etc. For understanding the knowledge of MBC and its criticality among the respondents, a questionnaire was administered that included questions such as 'awareness about the spread of cancer to other regions through blood vessels in addition to MBC' besides others. Further, they were questioned on the course of treatment taken on the observance of such occurrences, their awareness about it and the kind of lifestyle which led to such problems.

#### Result

As observed in the Figure 1, only 19% of men were aware of the fact that breast cancer can occur in males as well. The rest 81% did not know about this problem. Out of the 19% of people who were aware of it, 4% of people did not know the type of lifestyle which triggered cancer and 9% did not know the course of treatment to be taken during this period.

Because a whopping 81% of the surveyed population did not know that breast cancer can even occur in males, they were made aware about all the symptoms to look for and not to ignore any sought of bulge/lumps/cysts that they may feel in their breast region or under the armpits.

# Conclusion

Breast cancer in males is still an issue that is not known to the majority of the urban population of India. It is feared that if the level of awareness is only 19% in an urban area, then what would be the level of awareness in rural areas of India. Even though MBC is rare (<1% globally)<sup>[33]</sup> but still, men need to realize that it can occur to them as well. As the modern-day lifestyle is becoming faster, even those who work actively are getting subjected to breast cancer. Men are not aware sufficiently in India because the campaigns normally take place for increasing awareness in females and not in males. Hence, more attention needs to be paid on MBC and males in both urban and rural areas should be made aware of this



Figure 1: Graph showing the percentage of males in urban population vs their awareness, alertness, criticality, treatment, and lifestyle regarding male breast cancer (MBC)

life-threatening problem, which will help them to discuss the disease in the initial phase itself with physicians for seeking early diagnosis and treatment.

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## **Conflicts of interest**

There are no conflicts of interest.

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