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AWARENESS ABOUT BREAST CANCER AMONG WOMEN ABOVE THE AGE OF 18 YEARS WORKING OR ATTACHED TO A HEALTHCARE INSTITUTE IN NAVI MUMBAI.

General Surgery

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ABSTRACT

Background: Breast cancer is emerging as commonest cancer in women and recent data by cancer registries shows increasing incidence especially among younger population. Early diagnosis and treatment has provided better survival rate. Even with advanced screening methods and better facilities, people are reluctant to seek early medical care due to lack of awareness and social stigma. This survey was conducted in our institute among women working/studying here to assess their level of knowledge about the risk factors and early signs of breast cancer.

Method: A prospective study was conducted for 2 months among 1106 women attached/working in different departments. A questionnaire was prepared and given to all those who were ready to participate. The data was recorded and analyzed.

Result: In the medical group , level of awareness was found to be better than non medical group. But overall awareness in medical group was less than 85 % and in the non medical group was less than 70%.

Conclusion: The overall awareness is unsatisfactory and indicates need for more awareness programmes at the institutional and community level. As younger age group can carry message and increase awareness in the society.

KEYWORDS

Breast cancer, risk factors, early signs, awareness, young women.

INTRODUCTION

The global burden of breast cancer is expected to cross two million cases by 2030[1]. Prevalence in India is estimated around 2.5 million, 0.8 million new cases and 0.5 million deaths occurring each year[2]. Carcinoma cervix, breast and oral cavity are common among women. It accounts for 19-34% of all cancer cases among Indian women[2,3,4]. According to National Cancer Registries and Regional Cancer Centers, it is the commonest cancer amongst women in Delhi, Mumbai, Ahmedabad, Kolkata and Trivandrum[3,4,5,6]. In all other cancer registries, it is listed as the second most common cancer among women. According to data from national cancer registry, young women are showing an increasing incidence of breast cancer with 48% patients below 50 years of age.

A Indian Council of Medical Research (ICMR) survey conducted during the period from 1982 to 2005 shows that incidence of breast cancer has almost doubled in metropolitan cities [7]. In comparison to western women, Indian women with breast cancer were found to be younger by almost a decade suggesting that breast cancer occurs at a younger age in India [8,9,10,11] . The peak incidence is found between 40–50 years in Indian women and found to be aggressive[8].

This study was conducted in our institute to find out the level of awareness among women in a medical institute who are working with doctors and other health care workers, taking into consideration the increasing trend in incidence of breast cancer among young population and the need for early diagnosis and proper treatment.

METHODS:

A prospective study was done in 1106 women attached to the healthcare institute from different sectors like medical, nursing, physiotherapy, dental and clerical staff, who were above age of 18 years. A written informed consent was taken and study was started after obtaining approval from the institute ethics committee. All the participants were given an information sheet which included all the details of the survey, a questionnaire (In english as all the participants could read and understand the language) containing questions related to early signs of breast cancer and risk factors. The questionnaire was a self administered one. The format was of yes, no and don't know type. Those who marked as yes or no was considered as aware and not aware and those who gave answer as don't know were considered in the not aware of the symptoms category in the final interpretation. For analysis the participants were divided into medical and non medical groups . Medical group comprised of medical students and junior staff from non-clinical departments, while in non medical group dental, physiotherapy, nursing staff and students and clerical staff were included. The overall awareness as well as the awareness level between medical & non medical participants were compared from the same data to see whether it is influenced by level of education . The data was collected and analysed using different statistical methods. The p-value for the chi-square test is less than 0.05 which indicates that there exists significant association between response and groups. To find out strength of relationship between these variables we used Symmetric Measures Phi and Cramer's V coefficient which included p-value, and the results were obtained.

RESULTS :

Maximum participants were from age group of 18-25years , 86.1% for medical and 70.8% for non medical. 11% from medical & 14.2% from non medical were in the age group 26-35yrs (Table 1). The symptoms of Cancer breast enquired about in this survey were nipple discharge, nipple position, pulling of nipple, breast lump or armpit swelling and change in the position of breast or size of breast.

A total of 1106 people participated in the survey of which 474 were from the medical side including medical students and staff. 636 were from the non medical side including nursing, physiotherapy ,dental students ,nursing staff and clerical staff . We tried to find out the overall awareness and since there was a significant association between response of 2 groups indicated by p value of <0.05 in chi-square test, the strength of association between these variables were assessed with Phi & Cramer's V coefficient and found to be significant.

Based on the response to the questions by the two groups and analysis of the data, the results obtained were as follows. Among women of medical group 87.3% and 53.8% from non medical group thought that change in position of nipple could be sign of breast cancer while 8.4% from medical and 10.4 % from non medical group didn't think so. Whereas 4.2% of medical and 10.4% of non medical were not aware that it could be a sign of breast cancer .The overall awareness was found to be 68.2% . The p value for chi square test was <0.05, with chi square test of 71.130. This shows a significant association with respective groups. On applying Phi and Cramer's V value for these, the value is >= 0.3 with p value of < 0.05 indicate a strong significant association between the respondent type and their response(Table 2).

A total 77% from medical group and 50.6 % from non medical group knows that pulling of nipple or breast skin can be a sign of breast cancer. while 15.5% for medical and 30.9% for non medical didn't think so and 7.5% from medical and 18.4% for non medical were unaware of this symptom of breast cancer which is statistically significant , the overall awareness in this group was found to be 62.6% (Figure 1).

Only 84.8% from medical and 71.5% from non medical group thought that a swelling in breast or armpit could be sign of breast cancer while

11% and 21.8% respectively didn't think so, whereas 4.2% and 6.6% from each group were unaware of such symptoms. The overall awareness was 77.2 %. The p –value was found to be less than 0.05 which is statistically significant A total of 85.2% from medical and 75.9% from non medical thought that bleeding or discharge from nipple could be a sign of breast cancer . While 7.2% and 16% respectively didn't think so and 7.6% and 7.9% respectively from each groups were unaware of it and the overall awareness was 80% . the p-value for the same was found to be 0.001which is also significant.

From the medical group 81% and 58.2% from non medical were knowing that change in size of breast could be a sign of breast cancer. While 10.5% and 28.5% didn't think so. 8.4% and 13.6% respectively from each group were not aware of these symptoms.The overall awareness was 68% in this group (Figure 2) with a p-value of 0.006.

The association of knowledge of risk factors was evaluated between the two groups and the end results were as follows. 82.3%from the medical group and 65.8% from the non medical group were aware of the risks factors for cancer breast like breast feeding, post menopausal status and unmarried status. 10.5% and 15.5% did not think they are risk factors whereas 7-2% & 18.7% respectively were unaware of these risk factors. Thus overall awareness was found to be only 72.9%. 86.1% from medical group & 84.2% from non medical group was knowing that breast cancer can run in families and lifetime risk increases once a family member is affected with breast cancer while 9.7% and 9.5% respectively didn't think so . While 4.2% from medical and 6.3% from non medical group were not aware of this risk factor (Figure 2).

Table No 1: Shows age wise distribution of women between 2 groups.

Age group (years)	Medical		Non-Medical	
	Count	Column N %	Count	Column N %
18-25	408	86.1%	450	70.8%
26-35	52	11.0%	90	14.2%
36-45	12	2.5%	60	9.4%
46-55	2	0.4%	30	4.7%
56-65	0	0.0%	6	0.9%

Table 2: Number of women aware of clinical symptoms and risk factors

Symptoms	Medical (n out of 474)	n %	Non medical (n out of 632)	n %	Over-all awareness (n)	n %	p value	Phi	Cramer's V
Position of nipple (PoN)	408	87.3	340	53.8	748	67.63	0.000	0.359	0.359
Pulling of skin / nipple (PuN/ S)	368	77.0	324	50.6	692	62.56	0.000	0.270	0.270
pain / swelling	402	84.8	452	71.5	854	77.21	0.001	0.158	0.158
Change in size	384	81.0	368	58.2	752	67.99	0.000	0.137	0.137
Discharge/ bleeding from nipple (D/B From N)	404	85.2	480	75.9	884	79.92	0.006	0.248	0.248
Risk Factors									
Breast fed	390	82.3	416	65.8	806	72.87	0.000	0.193	0.193
Post menopause	390	82.3	416	65.8	806	72.87	0.000	0.046	0.046
Unmarried	390	82.3	416	65.8	806	72.87	0.000	0.030	0.030
Family history	408	86.1	532	84.2	940	84.99	0.556	0.047	0.047

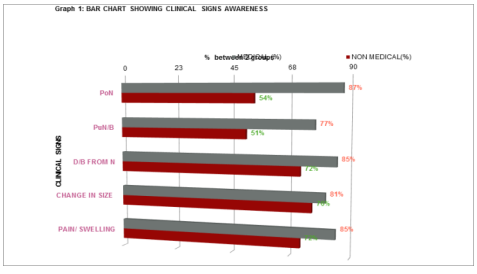

Figure 1: Bar graph of clinical signs of awareness between medical and non medical groups. 83% on an average of the medical group females were aware of the signs of breast cancer were as only 67% of the non medical group females were aware of clinical signs.

(PoN- Position of nipple, PuN/B - pulling of nipple / breast , D/B From N- discharge or bleeding from nipple, Change in size - Change in size of breast or nipple)

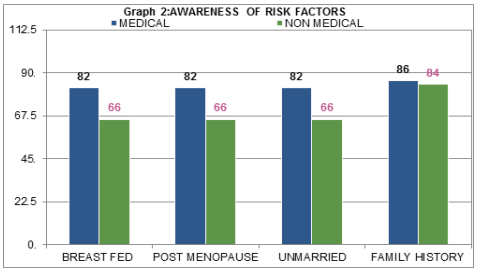

Figure 2: This graph compares awareness about the risk factors between medical and non medical group of females. 83% of the medical group female were aware of the risk factors of breast cancer whereas only 70.5 % of non medical group female were aware of it.

DISCUSSION:

Breast cancer is one of the common cancers world wide. Early diagnosis and treatment carries a good prognosis in patients diagnosed with breast cancer. Data shows that Early Breast Cancer (EBC) constitutes only 30% of the breast cancer cases treated in different cancer centers across India whereas it comprises of 60-70% of cases in the developed world[12]. In India the incidence/mortality ratio is 0.48 compared to data from North America which is 0.25 [13]. Delayed presentation of patients with advanced malignancy because of lack of awareness is a major problem which increases the mortality & morbidity in India. In rural areas of India especially among socially and educationally backward communities women are reluctant to visit healthcare professionals. Lack of awareness , social stigma , decreased literacy rate and financial crisis are some of the reasons preventing people from seeking advice from healthcare professionals for the same. Therefore, it is necessary to have widespread awareness among the population about the symptoms of breast cancer, importance of approaching a doctor, awareness about self breast examination, high risk population and breast cancer screening modalities.This will help in early diagnosis of breast cancer, reducing the risk of delayed presentation which in turn improves the survival rate in breast cancer patients.

Considering the need for assessing awareness about breast cancer among younger women, this survey was conducted in a tertiary care center. The aim is to find out whether these women attached to the medical institute hailing from various medical fields have adequate awareness among them regarding early symptoms and risk factors. The groups studied were nurses, nursing students, MBBS students, junior doctors, dental students, physiotherapists and non clinical staff. A total of 1106 people participated in the study. The maximum number of participants were in the age group of 18 - 25 years . The overall awareness as well as difference in level of awareness between medical and non medical group was studied which showed a significant difference. This suggested that knowledge of breast cancer among the medical students and staff was higher and a small subset of women from both groups were totally unaware of the symptoms. People with better education & socio-economic status (SES) were found to be having better awareness compared to other group.

In a study by Somdatta et al [14] in 2008 conducted at a colony in Delhi only 56% of the respondents were found to be aware of breast cancer as a disease. Only very few women identified early warning signs of breast cancer like painless lump in breast. Another study conducted in Nigeria[15,16] also showed similar results. Some other studies [17,18] also suggests that cancer awareness is poorer among those who are less educated and from a lower socioeconomic status. It was shown that

women of low SES have a low incidence of breast cancer compared to women of higher SES, but they experience a higher mortality rate, due to diagnosis at a later stage [19]. A similar trend was also found in the Grunfeld survey[20] with socioeconomic status. Webster and Austoker [21] also reported a strong association between inaccurate knowledge of lifetime risk of breast cancer and lower formal education. A study by Linsell et al[22] among older women also shows that knowledge of symptoms and risk were strongly related to educational qualifications.

In our study although doctors and medical students are having a better knowledge compared to other groups but they also could not claim a 100% knowledge about the warning signs and risk factors. The level of knowledge in the non medical section was poor compared to the other group and many of them were totally unaware of the subject which is not a healthy trend considering the increasing incidence of breast cancer and its increasing trend in younger population. It shows the need for an urgent and effective way for awareness programs in the community. The young population can take a message to the society and spread awareness among the people thereby helping in early diagnosis & effective treatment of breast cancer. Among the factors which we focused, the nipple discharge, altered size of breast and armpit swellings were largely neglected by people , while the common things like lump was known to most of them which again shows the need for a better awareness among youth in India.

CONCLUSION:

Globally the incidence of Cancer Breast is showing an increasing trend. In India also it is the commonest cancer in metro cities and second most common cancer in rural areas with increasing incidence in younger population. Early diagnosis and treatment gives a better prognosis . This survey was conducted to assess the awareness about early warning signs and risk factors in young population in medical institute and its emphasizes the need for better awareness programmes at institutional and community level to improve the awareness of breast cancer.

Institute ethics committee approval was taken before the start of the study.

Informed Consent

Written informed consent was obtained from patients who participated in this study.

Conflict of Interest

No conflict of interest was declared by the authors.

Financial Disclosure

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