Section: Community Medicine

Knowledge, Attitude and Practice (KAP) of Women about Breast Cancer in a Tertiary Care Teaching Hospital in Rohtas, Bihar

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ABSTRACT

Background: Breast cancer (BC) is an important cause of morbidity and mortality. The early detection of BC and its early and adequate treatment increases the chance of survival of patients. Breast Health Global Initiative guidelines for low and middle income countries suggests that diagnosing BC early by promoting self awareness and clinical breast examination (CBE) will reduce BC mortality. There is a paucity of data related to knowledge and awareness of BC in Bihar. We designed this hospital based cross sectional descriptive study to evaluate the current status of knowledge; attitude and practices (KAP) related to BC in the female rural population attending a tertiary care teaching hospital in Rohtas, Bihar. **Methods:** A random sampling was done to identify and enrol 400 women and their female relatives. Women who had already undergone a screening mammography or had a BC were excluded from the study sample. The data was collected by a self-administered questionnaire in local vernacular language. **Results:** The mean age of study population was 45.21 (±10.2) years. Only 5 (1.25%) females had a family history of BC. A whopping 82.75% of women did not have any knowledge about BC. Almost all of the women had firm belief that CBE by doctors was the only way for detecting BC. **Conclusion:** It is imperative to increase awareness about BC and its early detection methods in the community through health education campaigns. The government should have major policy changes to increase future screening programmes which could have an overall positive impact on reducing the BC burden in community.

Keywords: Breast cancer, self-breast examination, early detection, adequate treatment.

INTRODUCTION

BC (Breast cancer) is a major cause of morbidity and mortality among women all over the world. Over 1 million new cases of BC occur annually across the globe. It is the most common cancer comprising 18% of all female cancers.[1] Considering the annual adjusted rate, BC incidence in India varies from 7.2 to 33.4 per 100,000. BC accounts for about twenty five percent of all cancers in Indian women and about fifty percent of all cancer-related deaths. Among BC patients, nearly 8% are detected in Stage 1 and 23-58% in Stage 2 and 3. As per 5 year survival rates, prognosis of Stage 1 is better with 5 year survival rate as high as 90% while prognosis is poor in Stage 4 with 5 year survival rate of only 22%.[2] The detection of BC in cancer centres varies among countries. In developed countries, 60-70% cases are detected early while in developing countries like India, only 30% cases is seen early. So, majority of BC patients in

India are treated at locally advanced or metastatic stage. The incidence/ mortality ratio also varies vastly. The ratio in North America is 0.25 while it is 0.48 in India.[3] The late diagnosis and treatment can be attributed to lack of awareness and non-existent BC screening programmes in India.

Early detection and treatment of BC increases the chance of survival of patients. BC can be screened at early stages with various modalities like breast self-examination (BSE), clinical breast examination (CBE) and mammography. Early results of two randomized controlled trials conducted in Russia and China suggest that it would not be effective in reducing mortality form BC.[5] CBE is also a very simple and inexpensive method but its efficacy in decreasing mortality from BC has not been proved in randomized controlled trials. The American cancer society (ACS) recommends CBE and mammography in early detection of BC and proposes that women should start BSE in her early 20's.[6] But ACS does not advocate BSE as a tool that increases survival rates in BC.[7,8] The survival rates can be achieved upto 95% by early detection of BC, as suggested by Breast Health Global Initiative guidelines.[9] Women can detect 95% of BC and 65% of early minimal BC by themselves. Theoretically, BSE is an important tool for reducing

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mortality with BC in low and middle income countries but practically its application is low. In United States, it was seen that monthly BSE rates ranged from 29-63%.

BC screening programmes are not actively done in India. Nearly all Indian BCs are detected clinically.[11] There is a paucity of data of the knowledge and awareness of BC in India. A hospital based study was designed to evaluate the current status of knowledge, awareness and practices related to BC in the female rural population attending a tertiary care teaching hospital. We also wanted to assess if there is any association between demographic variables of patients, knowledge of BC and the practice of BSE.

MATERIALS AND METHODS

The study was done in the out-patient department of a 700-bed teaching hospital located in Rohtas, Bihar. The study was done jointly by the department of community medicine and department of general surgery. The study was done after approval from the institutional ethics committee. Informed consent was taken from all study sunjects.

The study was a cross-sectional descriptive study among all consecutive women and their female relatives who accompanied them in surgery OPD of our hospital. Sample size was calculated by using Epi Info (version 6) software, freely available online. With an expected frequency of knowledge about BC of 10%, a worst acceptable awareness of 6%, and an alpha (α) value of 0.05, a sample size of 213 was found sufficient to represent patients seeking hospital facilities in an urban setting. However, we increased our sample size to 400 for better validity. We did a random sampling to identify and enrol 400 women and their female relatives. We took their informed consent for collecting this information and insured their privacy, confidentiality and rights are respected. The participants who had already undergone a screening mammography or had a BC were excluded from the study population.

 The data was collected by a self-administered validated questionnaire in local vernacular language. The questions were adapted from Champion's Health belief model for BC after due permission through mail.[12] The questions were clarified by medico-social workers of the department of Community Medicine. The structured questionnaire had three parts: part one for demographic information such as age, place of residence, monthly income of the family, academic level, age of menarche, marital status, parity and lactation history, menarche-first child interval, exposure to tobacco and other addcition, family history of BC and; part two, regarding awareness of BC which includes questions concerning knowledge and attitude-if the participant had heard of BC, source from which they have heard of BC, symptoms of BC, risk factors and methods of detection including SBE and screening

mammography. Part three of the questionnaire was regarding BSE which includes questions on the awareness of BSE, frequency and few questions on how to do BSE. Each correct answer was assigned one mark whereas incorrect answer and non-response was given zero marks.

The data was entered in Microsoft excel and statistical test were applied using SPSS version 16.0. We described continuous variables by mean and standard deviation if they are normally distributed and by medians and interquartile range if they are skewed.

RESULTS

Our study population included 400 women with a mean age of 45.21 (±10.2) years. About 27.5% of women had not received any formal education and another 19.75% were educated only until primary level. All women were married and their mean ages of menarche were 13.15 (±0.67) years and were in their second decade at the time of birth of their first child 19.10 (±5.86 years). Most of the women (88.5%) had breast fed their children and had no addiction (94.75%). Only 5 (1.25%) females had a family history of BC [Table 1 and 2].

A whopping 82.75% of women did not have any knowledge about BC. Remaining 69 participants had heard or had some knowledge of BC either form friends and relatives (13.5%) or television or radio (2.5%) or from doctors (0.5%). Most of the women thought that CBE by doctors was the only way for screening BC. It was seen that the proportion of women who were aware increased as the literacy status increased and this was statistically significant (p<0.001). Similarly, those who belong to higher socio-economic status (SES) were more aware about BC as compared to those belonging to lower SES and this difference was also statistically significant.

It was but a surprising revelation that only two participants of the study population had knowledge about BSE or had previously done BSE [Table 3].

Table 1: Demographic characteristics of study population

Variables	N=400 (all females)
Mean age in years (SD)	45.21 (±10.2)
Median Income (INR)	35,000 (10,000- 2,00,000)
Education (%)	
None	110 (27.50)
Primary school	79 (19.75)
Secondary school	156 (39.00)
Junior college & above	55 (13.75)
Mean age of menarche (in years)	13.15 (±0.67)
Married (%)	400 (100%)
Median number of children (range)	3 (0-6)
Mean age at birth of 1st child (Years)	19.10 (±5.86)
History of breast feeding (%)	354 (88.5%)
History of any addictions	21 (5.25)

Table 2: Regarding awareness of breast cancer

Variables	N=400 (all females)
Awareness of BC (%)	69 (17.25)
Family history of BC	5 (1.25)
Source from which participants had information about BC (%)	
Unaware	331 (82.75)
Friends and relatives	54 (13.5)
Television/ radio	10 (2.5)
Doctors	2 (0.5)
Others	3 (0.75)
Knowledge assessment regarding symptoms of presentation of breast cancer (n does not add up to 69 as each participant answered to multiple questions or none)	
Nipple discharge	7 (1.75)
Enlargement of one breast	18 (4.5)
Lump in breast	75 (18.75)
Axillary lump	9 (2.25)
Retraction of breast	12 (3.0)
Arm swelling	3 (0.75)
Nipple retraction	1 (0.25)
Pain in breast	86 (21.5)
Awareness about methods of screening for breast cancer (%)	
BSE	2 (0.5)
CBE	398 (99.5)
USG	0
Mammography	0

Table 3: Assessment of knowledge and practice of BSE

Variables	N=400 (all females)
Knowledge about BSE	2 (0.5)
Study participant done BSE	2 (0.5)
Participants thought about chances of getting BC (%)	
Quite less than average	1 (0.25)
About average	399 (99.75)

DISCUSSION

A cross sectional descriptive study was done to find out awareness of women about BC. From this study, we found that more than three-fourth of the study population (82.75%) was unaware about BC. Among the participants who were aware, were more educated and belong to higher socio-economic group. Only two study participants were having knowledge about BSE or were performing BSE. Almost all the women in the study thought that BC can only be detected by CBE by doctors. Somdatta and Baridalyne found that only half of the study population was aware of BC and the awareness increased with increasing literacy and increasing SES. This was comparable to the results of our study. It has been shown that women of low SES have a low incidence of BC compared to women with higher SES although they experience a higher mortality rate due to higher late stage disease. The same study also showed that half of their study participants also thought that BC can only be detected by clinical examination by doctors. Only 11% women were aware of BSE and only two of them have ever done BSE. However, none of them do it on regular basis.[3]

Low screening rates for BC among underserved women suggest that there are both personal and health-care barriers that influence participation in screening. Personal barriers include lack of knowledge about cancer screening, embarrassment in participating in actual screening procedures, low trust in prevention concept and fear factor of cancer. Additional barriers were procrastination, social and cultural beliefs and perceptions of discrimination in the current health system of India.[13]

There are very few literature citing knowledge and awareness of early detection measures of BC such as BSE.[14,15] In women of age fifty and above, screening by mammography substantially reduces mortality from BC. However, this radiological method is expensive and is not easily accessible and therefore difficult to implement in India where resources are meagre. A cohort study in Finland and a case-control study in Canada suggest BSE to be beneficial at all ages reducing the mortality.[16,17] The current debate is on the role of regular self-examination of the breast in preventing BC mortality. Positive health care behaviour can go a long way in increasing health awareness amongst the population and also health seeking behaviour.[18-20]

CONCLUSION

The study depicts that among women attending our hospital the knowledge about BC, Its sign and symptoms or detection procedures is very poor. The data suggests that we must increase the awareness about BC among general population and disseminate knowledge about its detection methods in the community through health education campaigns. We should have major policy changes to increase future programs and health education programs that will have an overall positive impact on reducing the diseases burden.

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