



## Surgery

## EPIDEMIOLOGICAL STUDY ON BREAST CANCER ASSOCIATED RISK FACTORS AND SCREENING PRACTICES AMONG WOMEN OF LUCKNOW DISTRICT.

**Dr Anurag Khare**

MS (Surgery) Assistant Professor, Career Institute of Medical Sciences and Hospital, Lucknow

**Dr Vijai Kumar Misra\***

MS (Surgery) Assistant Professor, Career Institute of Medical Sciences and Hospital, Lucknow \*Corresponding Author

### ABSTRACT

**Background:** Breast cancer is the second most common cause of death (1.38 million, 10.9% of all cancer) worldwide after lung cancer.

**Objectives:** The aim of our study was to assess knowledge and the awareness about the risk factors, recovery factors and the screening practices for early detection of breast cancer among the women of Lucknow district.

**Material and Methods:** A cross-sectional population based survey was conducted. The investigation tool adopted was self administrated questionnaire format. Data were analyzed using SPSS 20 version and Chi square test to determine significant association between various education groups with awareness and knowledge, analysis of variance was applied in order to establish significance.

**Results:** The attitude of participants in this study, among 550 women 500 (91%) responded (age group 18-65 years), 53.8% were married. The knowledge about BSE (Breast Self Examination) was very low (16%) and out of them 15.6% were practiced BSE only once in life time. study shown that prominent age at which women achieve their parity was 20 yrs, among 500 participants 224 women have achieved their parity from age 18 to 30 yrs. Very well known awareness about risk factors of breast cancer were alcohol (64.6%), smoking (64%) and least known awareness risk factors were early menarche (17.2%) and use of red meat (23%). The recovery factors of breast cancer cases were doctors support (95%) and family support (94.5%) as most familiar responses seen in Lucknow.

**Conclusion:** The study revealed that the awareness about risk factors and practiced of BSE among women in Lucknow is extremely low in comparison with other cities and countries. However, doctors and health workers may promote the early diagnosis of breast cancer.

**KEYWORDS :** Awareness - breast cancer - breast self examination - knowledge - parity - risk factor - screening practice.

### Background:

Cancer is a major problem with increasing trend of occurrence worldwide.<sup>1</sup> Although concerning about public health non-communicable diseases are assuming important in developing countries, where at present cancer is leading cause of death. From the incidences of morbidity and mortality rate of breast cancer showing an increasing trend of risk factors associated with breast cancer<sup>2</sup>. Recently rise in incidences of risk factors of breast cancers due to urbanization, life expectancy, life styles and interaction pattern of people with environment and chemical causes leading to the onset of these non-communicable diseases<sup>3</sup>.

Risk factors of breast cancer are as gender, age, race, family history and genetic factor, personal health history like early menarche and late menopause, reproductive history, certain genome changes, dense breast tissue, lack of physical activity, poor diet, obesity, lack of awareness, alcoholism, exposure to radiation and nulliparous, poor breast feeding, oral contraceptive and life-style etc<sup>4</sup>.

### Aim and Objectives:

The aim of our study is to assess knowledge and the awareness about the risk factors, recovery factors and the screening practices for early detection of breast cancer among the women of Lucknow district.

### Material and Methods:

This study used self administrated questionnaire which was prepared on the basis of information collected from literature<sup>5-10</sup> consisted of six parts as general information, the personal dietary habit, health awareness, breast cancer awareness, risk factors and recovery factors of breast cancer. In the questionnaire format mostly options are Yes / No/ can't say.

**Sampling and data collection:** Sample subjects were randomly selected from various regions of Varanasi city. Subjects were 4 decade (range 18 to 65 yrs) of 360 women, out of which 60 women were refused to participate in this study. Questionnaire format was prepared both in English and native Hindi language for better communication and understanding. The data collection was done by investigators themselves.

**Statistical analysis:** Raw data which obtained from the awareness study were screened and analysed by SPSS-20 statistically software for data processing. The data were analyzed by description studies chi

sq. test and analysis of variance based on the above analysis, in order to find out the appropriate conclusion.

**Ethical consideration:** All necessary approvals for carrying out the research were obtained by the institutional ethics committee.

### Results:

Questionnaires were presented to 550 women, out of which 500 women were agreed to participate and to fill up the questionnaire and discuss on various issues of breast cancer and returned back. Here, general information about participated women and their habit and health is given in detail and knowledge & awareness about screening practices (BSE and mammography), risk factors and recovery factors of breast cancer were discussed.

**General information:** Proportion of participated women were included as 18-30 yrs (66%), 31-50 yrs (24%) and 51-65 yrs (10%) in this study. In participated women, minimum and maximum age was 18 and 65 yrs respectively, while maximum proportion of women was fallen in age between 18-30 yrs (66%) as shown in Table 1. Marital status of participated women was as married (53.8%), unmarried (44%) and widowed women (2.2%). Most of the women (86.6%) in the study were educated as High School (7.2%), Intermediate (8%), Undergraduate (45.6%), Postgraduate (20.4%), PhD (5.4%) and 13.4% were illiterate. Majority of participated women were student (53.80%), followed by housewife (29.6%) and employ (16.6%). Religion of participated women was found as Hindu (92.6%), Muslim (6.6%), Christian (0.6%) and other (0.2%). Mostly participated women were from urban (74.6%) and 25.4% from rural.

The strength of the association between age at first birth and breast cancer risk has varied considerably, risk gradually increases in those who has attained parity after 27 yrs, or nulliparous women. A study has reported that nulliparous women have higher risk than parous women because they certainly exposed themselves for breast cancer malignancy due to varied hormonal activity.

**Table 1: General information about participated women**

General information	Frequency N=500	%
<b>Age group in year</b>		
18-30	330	66
31-50	120	24
51-65	50	10

Marital status		
Married	269	53.8
Unmarried	220	44
Widowed	11	2.2
Education level		
Illiterate	69	13.4
High school	36	7.2
Intermediate	40	8
Graduate	228	45.6
Post graduate	129	25.8
Occupation		
Student	269	53.8
Housewife	148	29.6
Employed	83	16.6
Religion		
Hindu	463	92.6
Muslim	33	6.6
Christian	03	0.6
Others	01	0.2
Habitat		
Urban	127	25.4
Rural	373	74.6

**Table 2: Awareness about risk factors of breast cancer**

Groups	Risk factors	N=500		
		Yes	No	Can't say
Group 1	Age above 40 y	231	124	145
	Menarche below 12 y	89	253	158
	Menopause after 55 y	131	202	167
	Late marriage	169	178	153
	Nulliparity	162	179	159
	Hormone therapy	174	166	160
	Heredity	271	121	108
Group 2	Alcohol	323	67	110
	Smoking	320	71	109
	Pesticide	199	147	154
	Cosmetics	128	208	164
	Radiation exposure	245	100	155
Group 3	Sedentary life style	200	136	144
	Obesity	238	137	135
	Stressful life	219	136	145
	Injury	197	135	168
	Packed food/red meat	136	193	171

**Knowledge and awareness of cancer, breast cancer and screening practices:** 82% of participated women were aware about both cancers including breast cancer and 12% aware about only cancer not breast cancer but 6% responded that they do not know about cancer and breast cancer both.

**Table 3: Factors helpful in recovery of patient**

Group	Recovery factors	N=500		
		Yes	No	Can't say
Spirituality	Spirituality	327	99	74
	Prayer	336	106	58
Doctor's support	Doctor's support	475	08	17
Family	Family	472	13	15
	Spouse	448	20	32
Lifestyle	Physical exercise	405	60	35
	Modern life	393	66	41

**Recovery factors of breast cancer:** This was assessed by asking women, which factors they think would be responsible for helping in cure of breast cancer. As shown in Table 3, doctor (95%) and family support (92%) were given high value for recovery of patient suffering from breast cancer, these factors were very significant. Change in active life style (79.8%) also can help as protective factor. Hence, social spiritual and scientific approaches (as it includes doctors) are the cope up factor by which patient get confidence.

**Discussion:**

The present study reveals that the awareness and knowledge on breast cancer is moderate and awareness on risk factors of breast cancer is low as compare to other cities. Although, it is holy city but the

responses for doctor's support and family support are most well known from the recovery of breast cancer. Present study data has drawn our attention that nowadays women are carrier oriented and they delayed to achieve their parity. The longer exposure of menstrual activity causes the moderate advancement in the risks of breast cancer. But the protective factor is to attain the party below 27yrs and practice of BSE. It is considered as important tool in the early detection of breast cancer but many barriers are myths, cultural beliefs<sup>11</sup>, not know the correct method<sup>6</sup>, lack of knowledge<sup>12</sup>, lack of interest and not able to understand the importance of BSE<sup>2</sup>, social constrains<sup>13</sup>. These factors are interfering with practice of BSE. All women are need to encourage and being responsible for their own health. According to the Sheryl Crow (an American singer diagnosed with breast cancer), "The only person who can save you is you: That was going to be the thing that informed the rest of my life". Therefore, the need of BSE practice should be encourage by involvement of electronic media, television and radio. Various government and non-government organization with integration of doctors, hospitals, clinics and nowadays it is need for regular update of courses for health worker focusing on breast cancer education and screening practices. So, that greatest challenge of last stage diagnosis of breast cancer will be stop and it will rise in number of early diagnosis of breast cancer.

**Conclusion:**

The study revealed that the awareness about risk factors and practiced of BSE among women in Lucknow is extremely low in comparison with other cities and countries as well. However, doctors and health workers may promote the early diagnosis of breast cancer.

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