A study on cancer awareness among people attending a tertiary level care hospital in West Bengal

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ABSTRACT

Background: A cross-sectional observational study conducted in the outpatient registration counter among people seeking registration ticket in a government Medical College. Sample size was 214 with equal representation of each sex. **Aims and Objectives:** (1) The study's aims at assessing the knowledge quotient about the occurrence, site presenting symptoms risk factors and outcome of various cancers. (2) Sex specific cancer screening program self-breast examination, mammography, pap smear awareness, and usage among females of study population have been investigated. **Materials and Methods:** A cross-sectional observational study. Predesigned pretested questionnaire was administered to consenting participants among those registering for outpatient tickets at Calcutta National Medical college Hospital. Statistical analysis Used: Descriptive statistics was used with MS Excel. **Results:** Awareness was 69.8% with 69% stating gastrointestinal tract to be the most common site, Of the population 70% stated pain was to be the most common presenting symptom, tobacco was said to be the most common causative agent by 72% and 70% stated it to be non-treatable. Among sex specific cancers 40% women identified breast as site of cancer presenting with nipple discharge and 34% stated the presenting feature to be lump. Screening method of self-breast examination and PAP smear was said by 5% and 2%, respectively. **Conclusion:** The awareness regarding site cardinal signs outcome and risk factors was not good among study population. Much effort is to be given to address the state of things.

Key words: Cancer awareness; Men and women; Sign symptoms treatment

INTRODUCTION

With an epidemiological transition making way in our country, we are presently witnessing a shift in the diseases morbidity and mortality.[1] For a substantial period, the morbidity and mortality were attributed mostly to maternal and child health causes with communicable diseases contributing significantly.

However, with the said epidemiological transition we find that changing - trends where non communicable diseases have surfaced to the forefront. Non-communicable mortality and morbidity pattern can be attributed to disease to cardiovascular entities diabetes and most notably cancers. The various cancers causing mortality and morbidity have changed the government approach towards dealing with this disease as a public hearth mandate. Toward this end the National program for control of Cancer cop and disables has been launched.[1]

The program primarily aims at screening early diagnosis, treatment, establishment of a referral chain and palliative therapy. With regard to screening the program envisages the process of screening by aid of health camps in the newly formed Health wellness clinic by frontline workers.[2] Sahu et al., in their study states cancer is quite common in both developing as well as developed countries, but awareness is yet poor among the general population. Poor awareness may lead to poor uptake of screening modalities and delay

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in diagnosis. One factor that has been consistently shown to be associated with late diagnosis and treatment is a delay in seeking help for cancer-like symptoms.[3]

With so much emphasis on preventive aspect-of cancers the role of awareness development cannot be neglected the first step of prevention of any attitude related aspect is the awareness of existences, awareness of potential health effect or awareness to garner primordial prevention. With the necessity of awareness which will guide the proper health seeking behaviors this study has seen formulated to find out the awareness level about cancers its site, outcome presenting symptoms.

Aims and objectives

Main objective of the study is a assessing the knowledge quotient about the occurrence, site presenting factors, and outcome of various cancers.

Secondary objective of the study was investigation about sex specific cancer screening program such as self-breast examination, mammography, and pap smear usage among females of study population.

MATERIALS AND METHODS

The study was cross-sectional observational conducted among people registering for outdoor consultation in a Government Medical College in Kolkata.

A purposive sampling method was used. The study was conducted among patients seeking registration for outdoor consultation from two ticket registration counter including first 107 of each sex registering for any outpatient department irrespective of the specialty registering for. All persons approaching registration counter were selected after consenting. Those severely ill or unwilling to participate were excluded from the study.

Sample size was calculated using a prevalence of awareness about cancer as 87%[4] confidences 95% error power 80% and error of 5% was calculated as 214. At end of study period effective, sample size was 214 following an equal representation among both sexes.

Reviewing literature and in consultation with medical staff attending to patients in hospital a tentative questionnaire was developed. The instrument was validated for face and content validity by experts and tested for reliability through a pilot study before implementation. Following reliability confirmation and correction derived after piloting, the instrument was used. It was an open ended questionnaire where options of the respondents were noted as opposed to close ending for more information rich data. Analysis

was done in MS Excel from information gathered from all 200 subjects.

RESULTS

The socio-demographic picture of the study population showed an age range of 18–76 with 61% within 40 years of age. Education level was at various level s of mid and high school with 12% accomplished secondary or higher levels of education. Three forth were coming from surrounding rural regions with 56% living in a joint family. Of considerable importance was the finding that 1.9% were smoking tobacco and about 21% used chewable tobacco and 0.8% admitted to consuming alcohol.

Domains which were identified and relevant for detecting cancer awareness were grouped as awareness of site of occurrence, awareness about presenting symptoms, awareness about outcome of cancer and awareness about risk factors of cancer. Questions were open-ended and encouraged to freely enlist. Subsequently the information gathered and collated in the figures given above. Awareness about cancer was 69.8% in the study population. Percentage of awareness domains was calculated for n=214 while those of female sex specific were calculated with n=107.

Regarding awareness of site of occurrence about 69% identified gastrointestinal site to be a common site of cancer followed by lung identified by 64% following oral cavity stated by 65% and finally breast as a site for cancer by 40% (of the female population). Occurrence of sex specific reproductive site cancers of uterus, cervix and prostrate was not stated by the study population as site of cancer. However, on probing the female participants 4% identified cervix as a site of possible cancer with presenting symptom as foul smelling discharge. Of the study population as seen in Figure1 66% thought it is incurable causing eventual death while 13% considered it curable. One percent had no idea about outcome. About 54% were of the opinion of survival of 5–10 years following diagnosis and treatment.

Information about causative agents of cancer among study population as seen in Figure 1 showed a good response of 72% attributing it to smoking and 58% to consuming tobacco in any form. While, 23% attributed it to alcohol consumption. About 15% identified as familial causes, 2% blamed excessive breast feeding and 2% to some ulcer.

Figure 1 shows awareness of symptoms showed 53% said weight loss to be a cause of concern, 70% stated pain, 24% said loss of appetite 25% said fever, and 2% said any ulcer. About 17% (of total population) stated appearance of any lump and 22% (of total population) said bleeding from nipples while none stated bleeding from anybody orifice may be cause of cancer.

In Table 1, which shows sex specific cancer queries among women we see of the 107 female participants that 40% were aware about breast cancer and mentioned nipple discharge to be presenting symptom while 34% mentioned the cause to be a lump. Only 5% mentioned self-breast examination with no one aware of mammography. Regarding cervical cancer 4% mentioned foul discharge to be a presenting symptom while none mentioned PAP smear as a preventive scanner.

DISCUSSION

Awareness about cancer its risk factors, cardinal presenting symptoms treatment options were investigated in this study. A meta-analysis on studies of these factors highlighted a significant shortage of multicenter population-based data in the incidence and risk factors associated with various malignancies in India. Further, there was a relative lack of information from the northern and north-eastern parts of India.[5] regarding awareness of cancer. The meta-analysis stated 55% of the population had not heard of cancer. Interestingly although aware about cancer subsequent information about site risk factors treatment and screening methods had varied results none very promising. In a study by Ray and Mandal about 15 years back cancer awareness was as high as 95% but similar lack of knowledge or information on other domains as site treatment risk factors were noted.[6]

Awareness about most common site of cancer showed in this study to be about 69% identified gastrointestinal tract to be a common site of cancer followed by lung identified by 64% following oral cavity by 65% and finally breast as a site for cancer by 40% of females. Raj et al., in their study, observed only 11% aware about colon cancer (other than tobacco causing cancers.[4] In Puducherry a study by Veerakumar et al.,

Table 1: Awareness about sex specific cancers among women in study population (n=107)

Number	Adequate knowledge	
Awareness about n=107		
Breast Ca	40	
Cx Ca	4	
Perception about presenting symptoms n=107		
Breast Ca	Nipple discharge	40
	lump	34
Cx Ca	Abnormal bleeding	nil
	Foul smelling discharge	4
	Contact bleeding	nil
Awareness about prevention n=107		
Breast Ca		
	Self-breast examination	5%
	Routine mammography	nil
Cx Ca	Pap smear	2%

Inf: study population showed inadequate knowledge with regards to awareness, presenting symptoms or prevention of breast and cervical cancer

shows awareness about lung and oral cancer to be 14% as compared to 64% and 65% in our study.[7]

Sex specific cancer awareness was low among the study population. Identifying prostate as a site of cancer was not mentioned by any male or female participant unlike study by Raj et al.,[4] where awareness about prostatic cancer was 8%. In this study, on probing the female participants 2% identified cervix as a site of possible cancer with presenting symptom as foul smelling discharge. Another 40% mentioned breast to be a common site of cancer. This has vastly different from study by Chandrika et al.,[8] where about one-third women were aware of cervical cancer. Cancer awareness has steadily increased over the years however information disbursal and subsequent assimilation is still very vague and without precision of information the point of acting fast or preventing at early stage still will remain a challenge. Organized health propaganda systematically and robustly can the only possible solution.

On asking about the cardinal sign and symptoms for early detection of cancers it was seen that 53% said weight loss to be a cause of concern, 70% stated pain, 24% said loss of appetite, 25% said fever, and 2% said any ulcer. About 17% (34% of females in the study) stated appearance of any lump and 22% said bleeding from nipples while none stated bleeding from anybody orifice may be cause of cancer. Comparing to study by Ray and Mandal, we find that only 35% of the respondents were aware of the 7-danger signals (i.e., the primary symptoms of cancer) as defined by the World Health Organization. In their study of the respondents knew all 7-primary symptoms of cancer and the majority (about 88%) knew only one or two (mainly tumor lumps and ulcers).[6] Similarly studies by Veerakumar et al., symptoms reported by majority were unusual bleeding (41.6%), followed by nagging cough (34.1%).[7] In a study by Sharma et al., as late as 2019 only 7.7% (36/470) of the study respondents were aware of all the nine warning signs of cancer. The most commonly known early warning sign of cancer was "unexplained swelling" (58.3%).[9]

Awareness about presenting symptoms can expedite treatment seeking process and arrest cancer at an early stage, as mentioned earlier awareness generation can be the mainstay along with periodic screening. Screening has been incorporated in the scheme of health wellness clinic however awareness generation is still an uphill task. As justly stated by Macpherson, the translation of knowledge into behavior change is likely to require a more comprehensive, longer-term, multi-faceted approach, and acknowledging the social determinants of health and health behavior theory."[10]

Risk factor identification forms a major part of preventive aspect of cancer. Being unaware of possible risk factor will
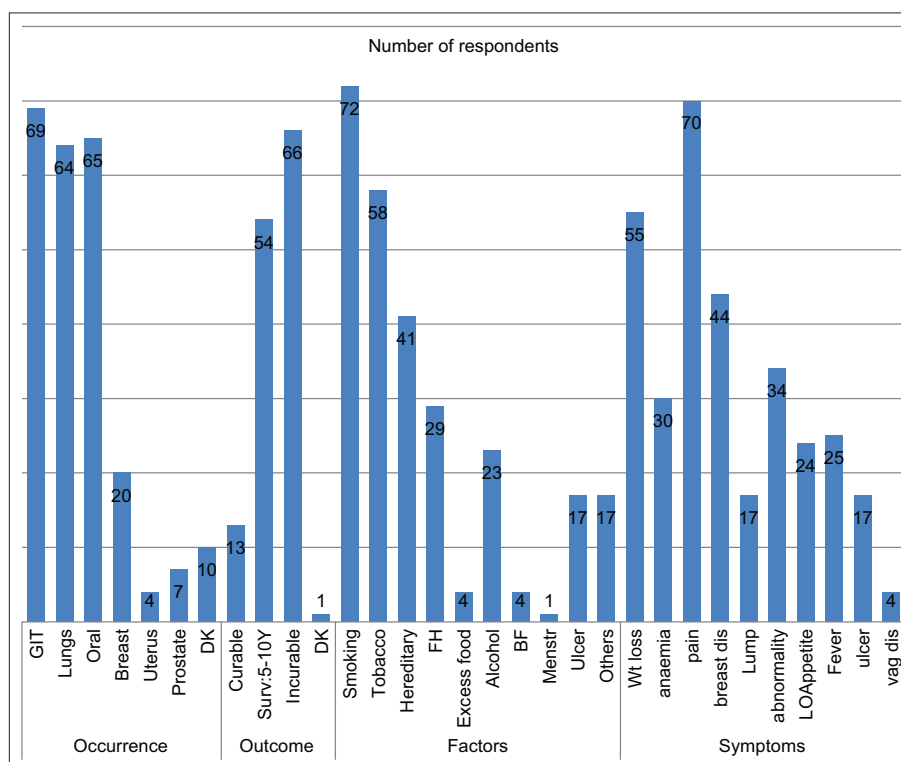
Figure 1: Distribution of study subjects according to awareness of different aspects of cancer N=214

promote risky behavior as well as negligence of healthy living practice.

On questions about risk factors of cancer among study population showed a good response of 72% attributing it to smoking and 58% to consuming tobacco in any form. While, 23% attributed it to alcohol consumption. About 15% identified as familial causes, 2% blamed excessive breast feeding and 2% to some ulcer. Comparing it to studies by Ray and Mandal where only 44.67% were aware of the major risk factors (like smoking and tobacco chewing).[6] Similarly, awareness level about smokeless tobacco as a risk factor was found to be 74.7% by Puri et al.,[11] Dahiya et al., mentions 15% attributing cancer to familial cause.[12]

In Table 1 we see that question presenting feature of cervical cancer 4% mentioned foul discharge while 2% mentioned PAP smear as a preventives scanner Comparing to study by Chandrika et al., awareness of risk factors, signs and symptoms of cancer cervix was low. Although 60% of the women, who have been aware of cervical cancer, were aware of possibility of early detection.[8] Presenting symptom of breast cancer was said to be nipple discharge by 40% and lump by 34% of the women **S**elf breast examination as a method of screening was stated by 5% of population. Siddharth et al., in a hospital-based study in central India, found none knew about breast self-examination.[13] The NFHS 5 data show about 4.8% women to have undergone screening for cervical cancer while only 0.8%were screened

for breast cancer[14] The ease and benefit of self-breast examination are an entity of vast potential but underutilized.

Of the study population, 66% thought it is incurable causing eventual death while 13% considered it curable. One percent had no idea about outcome. About 54% were of the opinion of survival of 5–10 years following diagnosis and treatment. Ray and Mandal similarly found the percentage of the respondents believing that most cancers are curable in early stages was 58%. Some of the respondents (21%) expressed the vague idea that cancer is an infectious disease.[6] Veerakumar et al., in their study, showed 10% reported cancer could be diagnosed early and 27% perceived cancer could be preventable. Only 6% perceived cancer could be cured fully.[7] Fatalistic attitude as also cavalier attitude as both detrimental in tackling the treatment of cancer, as iterated before correct precise timely information along with screening can be the only procedure to prevent cancer in a vast country like ours.

Limitations of the study
Study was done in a proxy representative population attending a tertiary care hospital, for better validity replication may be done at community level.

CONCLUSION

Targeted specific cancer awareness generation campaign is the call of the day, while anti-tobacco campaigners are

very dedicated towards awareness generation about tobacco causing cancers what fundamentally lacks is the awareness and information precision. Not only risk factor awareness which helps to prevent cancer to some extent knowledge about early presenting symptoms, importance about early screening cannot be emphasized enough. Imparting and measuring knowledge quotient being an intangible commodity remains a challenge to be addressed as swiftly and as efficiently as possible to restrain morbidity and mortality due to cancers.

KEY MESSAGES

Epidemiological transit from communicable to non communicable disease mandated increased effort be garnered toward non-communicable disease surveillance, prevention, screening, early diagnosis, and treatment of common cancers. Like extensive campaigning which were conducted towards polio eradication, tuberculosis containment, reversal of AIDS pandemic, time has now come to shift focus and generate rigorous program increasing the visibility of sponsored preventive screening, awareness on early symptoms and prompt diagnostic and therapeutic measured before it is too late for the patient as well as the society.

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