

Cancer Awareness in the Rural Population in Wardha District of Central India: A Questionnaire Based Study

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Abstract

Introduction: To estimate awareness of the common cancers in the region among the rural population in Wardha.

Materials and Methods: Questionnaires were prepared and distributed to the patients in AVBRH, Sawangi. Questions were designed to determine the knowledge about the common cancers in the region, their signs and risk factors.

Result: The general awareness, knowledge of signs and risk factors of the cancers considered were found to be very low when compared with the other researches conducted in urban areas of India and other countries. A good number of people felt positive about prevention of cancer though a very few recognized the specific screening tests for the cancers considered.

Conclusion: The study revealed lower general awareness and knowledge of the signs and risk factors of the common cancers in the region. This points to the need for greater emphasis on these aspects in the various public education programmes, particularly using mass media.

Keywords: Common, Cancer, Awareness, Rural, India.

I. Introduction

Cancer is the name given to a family of diseases, characterized by unregulated cell growth, which has the potential to invade other body parts and begin secondaries there. (1)

Cancer is one of the leading causes of mortality and morbidity in the world, with approximately 14 million new cases and 8.2 million cancer related deaths in 2012. (2) It is expected that annual cancer cases will rise from 14 million in 2012 to 22 within the next 2 decades. (2) More than 60% of world's total new annual cases occur in Africa, Asia and Central and South America. These regions account for 70% of the world's cancer deaths. (2)

Cancer is the second most common cause of death in India. (3) With Urbanization, modernization, industrialization, improved health care and increasing awareness, the life expectancy in India has risen from 45 years in 1971 to 62 years in 1991. (4) These changes will automatically affect the disease pattern, with cancer, cardiovascular and other non-communicable diseases forming the major burden. In India around 555,000 people died of cancer in 2010 (5).

The term cancer is usually associated with fear which comes due to decreased awareness. So in this research, we attempt to assess the awareness of the rural population of India, which constitute 72.2% of the total population (6), to the risk factors and warning signs of the 3 most common cancers in the region, separately among males and females.

II. Materials And Methods

Site: The research was conducted in Acharya Vinobha Bhave Rural Health, Sawangi, Wardha.

Type of Study: Questionnaire based study.

Duration: 6 months

Procedure: Common cancers in the region were selected according to a research conducted by G.Mishra on Epidemiology of Cancer in Rural Maharashtra. The risk factors and signs and symptoms for each of these cancers were taken from a list published by cancer research UK and a questionnaire was made for each of the selected cancers with the help of its Cancer Awareness Measurement toolkit. The questionnaires were then translated to the regional language, Marathi and validated by specialists in the field. The questionnaires were distributed to the people in the AVBRH, patients and visitors alike. The questionnaires for breast and cervical cancer were exclusively given to women and the questionnaires for oral, oesophageal and lung cancers were given to women and men. The filled in questionnaires were then collected and statistically analyzed.

Statistics: Percentage wise analyses of the results of the study were done. A total number of 98 people were approached to fill in each of the questionnaires and the percentage was derived.

III. Results

Out of 490 people assessed, 98 people for each cancer, only 30.61% of the population was aware of oral cancer, 26.53% was aware of lung cancer, 22.44% was aware of oesophageal cancer, 21.43% was aware of breast cancer and 20.41% was aware of cervical cancer. The signs and risk factors were individually assessed.

Table 1: Analysis of Oral cancer patients

Question No	No of patients who answered 'yes' N=98	Percentage (%)
Q1- Do you know about oral cancer?	30	30.61
Q2 – RISK FACTORS		
Alcohol consumption	24	24.48
Betel quid with tobacco	28	28.57
Tobacco smoking	22	22.44
Previous HPV infection	20	20.40
Q3 - SIGNS		
Appearance of white, red or mixed red and white spots (or patches) on your tongue, gums or any other issues in your mouth.	20	20.40
A sore or irritation in the mouth that bleeds easily and does'nt heal.	19	19.38
Bleeding in mouth	18	18.36
Persistent tenderness, pain or numbness anywhere in the mouth or on the lips.	19	19.38
A lump or thickening in the cheek or neck.	15	15.30
Difficulty in chewing, swallowing, talking or moving the jaw or tongue.	18	18.36
Change in voice that is'nt due to cold or allergies.	15	15.30
An earache that does'nt go away.	14	14.28
Numbness of the lower lip and chin.	20	20.41
Q4 - Did you know you must have a thorough mouth, head and neck screening by a dentist each year?	22	22.45

Table 2: Analysis of Lung cancer patients

Question No	No of patients who answered 'yes' N = 98	Percentage(%)
Q1- Do you know about Lung Cancer?	26	26.53
Q2 – RISK FACTORS		
Smoking	23	23.46
Exposure to second hand smoke	18	18.36
Family history of lung cancer	21	21.42
Radiation therapy to chest	17	17.34
Q3- SIGNS		
A cough that does not go away or gets worse	16	16.32
Chest pain that is often worse with deep breathing, coughing, or laughing	15	15.30
Hoarseness	12	12.24
Weight loss and loss of appetite	17	17.34
Coughing up blood or rust-colored sputum (spit or phlegm)	20	20.40

Shortness of breath	18	18.36
Feeling tired or weak	15	15.30
Infections such as bronchitis and pneumonia that don't go away or keep coming back	19	19.38
New onset of wheezing	14	14.28
Q4- Do you think you can prevent lung cancer?	28	28.57

Table 3: Analysis of Oesophageal cancer patients

Question No	No of patients who answered 'yes' N=98	Percentage(%)
Q1 - Do you know about oesophageal cancer?	22	22.44
Q2 - RISK FACTORS		
Alcoholic beverages	17	17.34
Betel quid with tobacco	20	20.40
Betel quid without tobacco	15	15.30
Obesity	17	17.34
Q3 - SIGNS		
Difficulty swallowing	20	20.40
Weight loss (without trying)	18	18.36
Chest pain, pressure or burning.	16	16.32
Worsening indigestion or heartburn	15	15.30
Coughing or hoarseness	17	17.34
Q4 - Can you prevent oesophageal cancer?	20	20.41

Table 4: Analysis of Breast cancer patients

Question No	No of patients	Percentage(%)
Q1- Do you know about Breast Cancer?	21	21.43
Q2- RISK FACTORS		
Prolonged hormone replacement therapy	16	16.32
Family history	20	20.40
Nulliparous women who have never breast fed.	15	15.30
Increasing age	18	18.37
Post-menopausal	18	18.37
Obesity	20	20.40
Q3- SIGNS		
a. A lump or thickening in or near the breast or in the underarm that persists through the menstrual cycle	21	21.43
b. A mass or lump, which may feel as small as a pea	20	20.40
c. A change in the size, shape, or contour of the breast	18	18.37
d. A blood-stained or clear fluid discharge from the nipple	17	17.34
e. A change in the feel or appearance of the skin on the breast or nipple (dimpled, puckered, scaly, or inflamed)	17	17.34
f. Redness of the skin on the breast or nipple	16	16.33

g. An area that is distinctly different from any other area on either breast	15	15.30
h. A marble-like hardened area under the skin	15	15.30
Q4- Do you know to do self-examination of the breast, to look for any abnormalities? Do you know the steps in the examination?	12	12.24

Table 5: Analysis of Cervical cancer patients

Question No	No of patients who said 'yes' N=98	Percentage(%)
Q1- Do you know about cervical cancer?	20	20.41
Q2- RISK FACTORS		
Previous history of human papilloma virus infection (appears as warts)	9	9.18
Smoking	10	10.20
Immunosuppression (HIV)	15	15.30
Previous history of chlamydial infection	10	10.20
Poor diet	15	15.30
Over weight	16	16.32
OCP Pills - longterm use	18	18.37
Intra uterine devices	18	18.37
Multiple pregnancies	20	20.40
Poverty	17	17.34
Family history	16	16.32
Q3- SIGNS		
irregular vaginal bleeding	18	18.37
vaginal discharge with an unpleasant odor	17	17.34
watery vaginal discharge	16	16.33
vaginal discharge tinged with blood	19	19.38
pelvic or back pain	17	17.35
pain during sex	16	16.33
problems urinating	15	15.30
problems defecating	14	14.29
Q4 -Did you know you have to screen yourself for cervical cancer regularly after the age of 21? Did you know about the Pap test?	11	11.22

IV. Discussion

The relevance of research on the awareness about the various cancers among the rural Indian population cannot be over emphasized. Cancer incidence in India has been on an uphill and even more the morbidities and mortalities associated with it. (7)(8) This may be because of the poor knowledge about the various cancers among the people of the country. Plenty of research has been done on the awareness of Cancer and its risk factors in the urban areas of the country while the rural areas which constitute 72.2% of the Indian population, appear to be ignored. (6)

In our research 5 common cancers in Rural Maharashtra were selected, namely – oral, lung, oesophageal, breast and cervical (in decreasing order of incidence) and the awareness among the rural population of Sawangi (a rural village, home to a medical college and a tertiary care hospital – AVBRH, where the population from the nearby villages resort to, for specialty medical care and facilities.) was assessed.

On assessment we found that, only 30.61% were aware of Oral cancer which is the most common in the region, this finding was in contrast to the findings of the research conducted by S P Shah et al in rural Bangalore, where only 12.10% were aware of Oral cancer, though our study shows a higher percentage of awareness than the Bangalore figures, the results together throw light on the overall poor awareness in the rural regions of the country.(9) When the results of our study was compared with the urban parts of India and the rest

of the world, greater awareness was observed in those regions, as in the research conducted by Mamta Agrawal et al for oral cancer awareness in Gorakhpur city, where 91.2% awareness was recorded and in a similar research conducted by Wan Maria Nabillah Ghani et al in Malaysia where 84.2% awareness was recorded.(10)(11) In the case of Lung cancer 26.53% awareness was recorded in our study, on comparison with the findings of the researches conducted by Sonia Puri et al in Chandigarh city where 65.1% awareness was recorded.(12) In the case of oesophageal cancer 22.44% awareness was recorded, there was no significant difference in the awareness level between our research and the researches conducted in the rest of the world. On comparison with the researches conducted in the rest of the world or urban parts of India, only 36% of the population in Kenya, in a research conducted by Bii J et al, was aware of oesophageal cancer, which is a common cancer in the region.(13) 21.43% awareness was recorded in the case of Breast cancer in our study, on comparison 56% awareness was recorded in an urban resettlement colony in Delhi, in the research conducted by Somdatta P and Baridalyne N et al.(14) 20.41% awareness was recorded in the case of Cervical cancer, similar to oesophageal cancer, there was no striking difference in the awareness level, when compared with the world, as in the research conducted in US by Akinlaja OA et al, 39.5% awareness was recorded.(15) These comparisons clearly demonstrate a poor awareness of the various cancers among the rural population of India, except for oesophageal and cervical cancers. These cancers may require more awareness measures worldwide.

As for the risk factors most people were aware of smoking as a risk factor for most of the cancers, many even rightly identified it to cause lung cancer (23.46% awareness) and Oral cancer (22.44% awareness), the two common cancers in the region. A very low percentage (10.20%) identified smoking as a contributing factor for cervical cancer. Most people were aware of the common risk factors like smoking, alcohol consumption and betel quid chewing but a sharp decline was seen in the awareness of other risk factors like radiation therapy to chest for Lung cancer with 17.34% awareness, previous history of chlamydial infection for cervical cancer with only 10.20% awareness, obesity in oesophageal cancer with 17.34% awareness and prolonged hormone replacement therapy for breast cancer with 16.32% awareness. As for the signs similar trend was observed as seen in the risk factors. Most of the population identified the signs and symptoms as an abnormality to be reported to the doctor more than a sign of a specific cancer.

Finally, when asked about their thoughts on whether cancer can be prevented a good number of the population answered positively that should be harnessed well with the right interventions and awareness camps. Very few recognized the specific screening methods for the prevention of the cancers, this calls for more measures to spread awareness among the rural population, which could significantly reduce the morbidities and mortalities associated with cancer.

V. Conclusion

The study revealed lower general awareness and knowledge of the signs and risk factors of the common cancers in the region. It throws light on the need for greater emphasis on these aspects in the various public education programmes, particularly using mass media.

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