Profile of Patients Attending a District Level Cancer Hospital – A Cross-Sectional Study

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Abstract

Introduction: Cancer has become one of the ten leading causes of death in India. It is estimated that there are nearly 2.5 million cancer cases at any point of time. Cancers of oral cavity and lungs in males and cervix and breast in females account for over 50% of all cancer deaths in India. Objectives: 1. To study the socio-demographic profile of patients attending a district level cancer hospital. 2. To study the pattern of cancers in male and female study subjects and their risk factors. Material & Methods: A cross-sectional hospital based study was conducted between October 2014 – December 2014 among 125 patients attending a district level cancer hospital, who were diagnosed and were undergoing treatment for different types of cancers. A pre-designed, semi-structured questionnaire was administered and details regarding their socio-demographic profile, exposure to risk factors, types of cancers, staging and treatment modalities were recorded. Data was entered and analysed using SPSS software 21.0 version. Proportions and chi-square calculated to study the different study variables. Results: Out of the 125 study subjects, 76.8% were females and 23.2% were males. 60.8% of the study subjects were in the age group of 41-60 years followed by 20.8% in the 61-80 years age group. In males, the leading cause of cancer was stomach (24%) and in the females 54% suffered from breast cancer.

Key words: Cancer, Risk Factors, Stages of Cancer, Nellore

Introduction

Cancer may be regarded as a group of diseases characterized by an abnormal growth of cells, ability to invade adjacent tissue and even distant organs and the eventual death of the affected patient if the tumour has progressed beyond that stage when it can be successfully removed. Globally, cancers in all forms are causing about 12% of all deaths. In developed countries cancer is the second leading cause of death accounting for 21% of mortality by other causes and in developing countries it ranks third, accounting for 9.5% of all deaths. In 2012, worldwide burden of cancer rose to an estimated 14 million new cases and 8.2 million deaths due to cancer per year. Globally, during 2012, the most common cancers diagnosed were those of lung, breast and colorectal and the most common cancer deaths were cancer of the lung, liver and stomach. Non-communicable diseases including cancer are emerging as major public health issues.
health problems in India. Cancer has become one of the ten leading causes of death in India. It is estimated that there are nearly 2 -2.5 million cancer cases at any point of time. Over 8 – 9 lakh new cases and 4 lakh deaths occur annually due to cancer. Nearly 15 lakh patients require facilities for diagnosis, treatment and follow up at a given time. Cancers of oral cavity and lungs in males and cervix and breast in females account for over 50% of all cancer deaths in India. Report of National Cancer Registries and Atlas of Cancer in India says that one in about 15 men and one in about 12 women in urban areas could develop cancer in their life time. Breast cancer and cervical cancers are commonest among females and cancer lung is commonest out of all tobacco related cancers in men. The important risk factors for cancer deaths in 34 – 64 years are related with tobacco, alcohol, diet, reproductive sexual behaviour, occupation, pollution, industrial products, medicines, geophysical factors etc.

**Objectives**

To study the socio demographic profile of the patients attending the district level cancer hospital.

To study the pattern of cancers in male and female study subjects and their risk factors.

**Material & Methods**

A cross-sectional hospital based descriptive study was conducted among the patients attending a district level cancer hospital. It was done between September 2015-November 2015 among the patients who were diagnosed and were undergoing treatment for different types of cancers. Thus a total of 125 patients were recruited into the study after taking their consent. A pre-designed, semi-structured questionnaire was administered and details regarding their socio-demographic profile, exposure to risk factors, types of cancers, staging and treatment modalities were recorded. Data was entered and analysed using SPSS software21.0 version. Proportions were calculated for the different study variables.

**Results**

The present study was conducted on 125 study subjects attending the District level Cancer Hospital. Out of them, 76.8% (96) were females and 23.2% (29) were males. 60.8% (76) of the study subjects were in the age group of 41-60 years followed by 20.8% (26) in the 61-80 years age group. 40% of the study subjects were illiterates and only 6.4% were educated above high school level. 63.2% were unemployed and 24% constituted unskilled workers. 98% of the study subjects were married and 92% were from nuclear families. Hindus constituted 85.6% of the study population followed by Muslims (8%). 44.8% belonged to backward classes, 34.4% were from open category and 20% from scheduled caste. 68% of the study subjects belonged to upper middle and middle class and 20% constituted upper class according to B.G.Prasad’s classification of socio-economic status. 91% of the study subjects were taking mixed diet and among them 70% took non-vegetarian food once a week whereas 17% took twice a week.

**Table 1: Sex wise distribution of smoker and alcoholic cancer patients**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Male N=29 (%)</th>
<th>Female N=96 (%)</th>
<th>Total N=125 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoking</td>
<td>24 (83)</td>
<td>0 (0)</td>
<td>24 (19.2)</td>
</tr>
<tr>
<td>Alcohol</td>
<td>23 (79)</td>
<td>0 (0)</td>
<td>23 (18.4)</td>
</tr>
<tr>
<td>Smokeless tobacco</td>
<td>01 (3.4)</td>
<td>27 (28)</td>
<td>28 (22.4)</td>
</tr>
</tbody>
</table>

**Table: 2 Staging of Cancers (n=125)**

<table>
<thead>
<tr>
<th>Staging</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>11</td>
<td>8.8</td>
</tr>
<tr>
<td>II</td>
<td>75</td>
<td>60.0</td>
</tr>
<tr>
<td>III</td>
<td>26</td>
<td>20.8</td>
</tr>
<tr>
<td>IV</td>
<td>13</td>
<td>10.4</td>
</tr>
<tr>
<td>Total</td>
<td>125</td>
<td>100</td>
</tr>
</tbody>
</table>

Among the male study subjects 83% were smokers and 79% were alcoholics. None of the female subjects were smokers or alcoholics, but 28% were using other forms of tobacco (Table:1) Among the females, 72% were in the 16-19 year age group when they were married and 17% in 20-24 year age
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Fig: 1- Pattern of cancers among the male study subjects (n=29)

Fig: 2 – Five leading causes of cancer among female study subjects (n=96)

Fig: 3 – Different modes of cancer treatment

group. 26% of the women had 2 children and 57% of them had 3 or more children. In males, the leading cause of cancer was stomach (24%), followed by rectum (14%) (Fig: 1). Among the females 54% suffered from breast cancer (Fig: 2). 60% of the cancers were in Stage II followed by stage III (20.8%) (Table: 2). 77% of the cancers were treated through a combination of therapies (Fig: 3)

Discussion

In the present study among 125 subjects 76.8% were females and 23.2% were males. 60.8% of the study subjects were in the age group of 41-60 years followed by 20.8% in the 61-80 years age group. In a study by Puri. Ishat et.al 684 patients constituted the study sample, with 359 (52.5%) females and most (32.3%) patients were in the age group 60-69 years. In another study conducted by a tertiary hospital in western Maharashtra, the study sample consisted of 96 (46.8%) males and 109 (53.2%) females. Most (71, 34.6%) of the patients were in the age group of > 60 years followed by 24.3% in the age group of 51-60 years. A similar study done by Giri PA et al revealed that, out of the 207 cancer patients, 41.54% were in the age group of >60 years, followed by 30.43% in the age group of 50-60 years.

Studies by Rajarao P et al , Khandekar SP et al and Ganesh R et al also found that majority of the subjects belonged to 51 - 60 years age group.

In the present study Hindus constituted 85.6% of the study population followed by Muslims(8%). Hindu patients were maximum (63.3%), followed by Sikhs and Muslims in the study done by Puri et.al . A study done at Loni, Maharashtra, showed 90.7% of the patients belonged to Hindu religion, followed by Muslims (7.3%).

In our study 40% of the study subjects were illiterates followed by those who had primary schooling (18%) and only 6.4% were educated above high school level. Similar result was seen in the study by Puri et.al . Another study done at Loni, Maharashtra showed that majority of patients (59.0%) were illiterate, and only about 2% were graduates. A similar study done by Giri PA et al indicated that 30.91% were illiterates and only 12.07% were graduates. 68% of the present study subjects belonged to upper middle and middle class and 20% constituted upper class according to B.G.Prasad’s classification of socio-economic status. Studies done by Khandekar SP et al and Ganesh R et al also found that majority of the
subject are from lower middle and upper lower socio-economic status.

In the present study, among the male study subjects 83% were smokers and 79% were alcoholics. None of the female subjects were smokers or alcoholics, but 28% were using other forms of tobacco. In a study done at Loni, Maharashtra, most of the patients (47.7%) gave a history of tobacco chewing followed by 42.1% smoking (either cigarette, bidi, or both) and 35.1% betel nut chewing, while 20.4% had a history of alcohol consumption. Similar findings were evident in research done by Giri PA et al., Puri S et al., and Murthy NS et al. which too showed that the major risk factors for all cancer patients were tobacco, smoking, habits of betel nut chewing, alcohol consumption, and dietary habits. Another study of Trivandrum too had emphasized that smoking increased the risk of oral cancer in men by as much as 90%. Relation of alcohol and cancer has been well established in many studies. A new global study by Cancela et al. has shown that people who consume large quantities of alcohol (seven drinks per week) have a 60 per cent greater risk of developing the cancer, compared to others. Various studies have substantiated enough evidence that alcoholism is associated with varied cancers like oral cavity, oesophagus, liver, pancreas, colon and rectal cancer substantiated in many studies.

In the present study, 54% females suffered from breast cancer followed by cervix (22%) and ovary (14%). In males, the leading cause of cancer was stomach (24%), followed by rectum and sigmoid colon (14%). A study done by Bagchi S didn't depict that breast cancer epidemic would occur over the next decade as more women adopt Western lifestyles by marrying and bearing children later in life.

**Recommendations:** In the present study, it is seen that only 8% of the patients came to the hospital in the 1st stage of disease and almost a third presented themselves in the 3rd and 4th stages of the disease. Awareness should be brought about in the general public regarding the danger signs of cancer, how to recognize them early and also educate them how to utilize health services effectively. Health education should also be imparted to the public regarding the risk factors of cancers such as smoking, alcoholism, spicy and fatty diet etc., and encourage them to adopt healthy life styles. School and college going students should be the prime targets as this is age when they develop different habits.

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**References**


