Original Research Paper

Medical Science

PREVALANCE RATE OF DIFFERENT TYPES OF CANCER IN THE HOSPITALS OF MYSORE CITY

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ABSTRACT
Objective: to study the incidence rate of different types of cancers in hospitals of Mysore city
Materials and methods: the data related to cancerous patients collected from four different hospitals in the Mysore city during 2015 and 2016, the collected data subjected to statistical analysis
Results: indicated more number of female cancerous patients than males during 2015 and 2016, female patients are more susceptible to cancer in the age group 51-60 whereas males are more prone to cancer in the age group 61-70. Among females breast cancer is most frequently occurred followed by cervical cancer, ovarian cancer etc. in males lung cancer is more prevalent followed by esophageal cancer , stomach cancer etc.
Conclusion: the number of cancer patients decreased from 2015 to 2016 due to awareness programs, improved medical facilities etc.

KEYWORDS : Mysore, cancer patients, Breast cancer, Lung cancer

INTRODUCTION

Cancer is a major cause of morbidity and mortality worldwide. According to WHO the global burden of cancer is increasing in next 20 years[1]. Breast cancer is the most common cancer among women worldwide. Breast cancer occurs more frequently in wealthy countries due to higher prevalence of its risk factors, such as old age at first pregnancy, low parity, high calorie intake, sedentary occupation and use of hormonal replacement therapy. Breast cancer is the most frequently diagnosed among women aged 55-64[2]. It is estimated that worldwide over 508,000 women died in 2011 due to breast cancer[3]. Cervical cancer is ranked as the most frequent cancer women in India. The current estimates indicate approximately 122,844 women are diagnosed with cervical cancer and 67,477 deaths annually in India[4]. Cervical cancer is the third most common malignancy in women worldwide and it remains a leading cause of cancer related death for women in developing countries, where more than 80% of cervical cancer occur[5]. Lung cancer is the most common fatal malignant disease worldwide with an estimated 160,390 related deaths in United States in 2007 and more than 80% of patients will die during first five years of diagnosis[1]. Prostate cancer is the second most common cancer in men after lung cancer. Other studies have shown a greater risk of colorectal cancer mortality associated with the presence of metabolic disorders compared to that associated with the individual metabolic components alone[6]. It is predicted to be the 7th cause of death and responsible for 3% of mortality by 2030.

MATERIALS AND METHODS

Four hospitals in Mysore city were selected for this study; these are Bharath Cancer hospital, Preeti cancer centre, The Radiant institute and Narayana hospital. From each hospital 2 years (2015 & 2016) data were collected based on the case reports of the patients. The data was analyzed based on the age (20-30, 30-40, 40-50, 50-60, 60-70, 70-80 and 80-90), sex and type of cancer.

RESULT AND DISCUSSION

During the year 2015 and 2016 in females the highest percentage (27.9%) of female cancer patients admitted to the hospitals of Mysore city in the age group 50-60 followed by 40-50 (23.6%), 60-70 (21.1%), 30-40 (12.6%), 70-80 (7.8%), 20-30 (3.9%), 10-20 (1%) and 80-90 (1.6%). (table-1). During the year 2015 and 2016 in male cancer patients the highest percentage was in the age group 60-70 (31.7%) followed by 50-60 (25.4%), 70-80 (14.7%), 40-50 (13.8%), 30-40 (7.1%), , 80-90 (3.7%), 20-30 (2.6%) and 10-20 (0.6%) (table-1). From the results it is evident that as age group increases from 20-60 years the female cancerous patients number increases significantly thereafter from age group 60-70 onwards the number of female cancerous patients decreases, the number of male cancerous

patients increases from age group 20-70 and thereafter from the age group 70-80 onwards their number decreases.(table1). During the year 2015 and 2016 female cancer patients (56% & 54%) are more than males (44% and 46%) (Fig-1 & 2).

In females in the year 2015, Breast cancer prevalence is highest (29.6%) followed by Cervical cancer (16.8%), Ovarian cancer (7.5%), Esophageal cancer (5.9%), Stomach cancer (3.2%), Endometrial cancer (2.9%), Lung cancer (2.6%), Thyroid cancer (2%), Colon cancer (1.6%), NHL (1.3%).In 2016, Breast cancer prevalence is highest (28.6%) followed by Cervical cancer (19.6%), Ovarian cancer (7.5%), Esophageal cancer (5.9%), Stomach cancer (3.4%), Endometrial cancer (2.5%), Lung cancer (2.3%), Thyroid cancer (2%), Colon cancer (2%), NHL (1.4%). (table 2)

In comparison in females during 2015 more number of breast cancer patients admitted to the hospitals than in 2016. Cervical cancer is reported to be more in 2016 than in 2015. The ovarian cancer and esophageal cancer is reported to be equal in both the years. The stomach cancer is reported to be more in 2016 than in 2015. The endometrial cancer and lung cancer is reported to be more in 2015 than in 2016. (table 2)

In the year 2015, Lung cancer prevalence is highest (9.3%) followed by Esophageal cancer (8.9%), Stomach cancer (6.5%), Tongue cancer (4.8%), Pyriform fossa (4.8%), Prostate cancer (3.9%), Rectal cancer (3.2%), NHL (3.3%), HCC (2.9%). In the year 2016, Lung cancer prevalence is highest (9.6%) followed by Esophageal cancer (7.4%), Stomach cancer (6.8%), Tongue cancer (5.6%), Pyriform fossa (3.4%), Prostate cancer (3.5%), Rectal cancer (2.8%), NHL (2.4%), HCC (2.8%). (table 3)

In the year 2014[7] reported that the alcohol consumption is associated with several types of cancers and combination of bad life styles such as smoking, drinking, lack of exercise, leads to more cancer risk.

Increase in the incidence of breast cancer reported[2]. But our results contradicting their results, this may be due to the increased awareness among females. The food habit also plays an important role in the incidence to increase the risk of breast cancer reported[8]. Breast feeding has been observed to be protective against breast cancer[9,10].

The incidence of cervical cancer in the developed countries has decreased due to the implementation of population based programs and treatment of pre invasive disease[5] in contrast to this, in our study reveals that the incidence of cervical cancer increases

from 16% to 19%.

The lung cancer reported to be more in men. The reason may be the more exposure to the risk factors and high proportion of cigarette smokers, such results are also published[1]. According to their results higher prevalence of lung cancer in the males of Iran, they analyze the reasons that this may be due to the old age and smokers with low and moderate socio economic classes.

The study also emphasize that cancer of cervix is a common gynecological occurrence in the region of our study such results are reported[4]. The early marriage may decrease the incidence of breast cancer whereas possibility in the increase of cervical cancer to prevent such types of cancer the awareness program should be implemented the education can bring awareness among people. During the study period, the types of cancers decrease from previous year to second year in both female and male patients respectively. This might be from education, awareness and medical facilities.

Table-1: Prevalence of cancer in different age groups among females and males

Age group	Females		Males	
	No of patients	Percentage	No of patients	Percentage
10-20	40	1%	22	0.6%
20-30	150	3.9%	85	2.6%
30-40	486	12.6%	228	7.1%
40-50	909	23.6%	444	13.8%
50-60	1,073	27.9%	814	25.4%
60-70	813	21.1%	1015	31.7%
70-80	301	7.8%	471	14.7%
80-90	64	1.6%	121	3.7%
	3,836		3200	

Table-2: Types of cancer in females in the hospitals of Mysore city

Sl no	Type of cancer	Percentage	
		2015	2016
1.	Breast cancer	29.6%	28.6%
2.	Cervical cancer	16.8%	19.6%
3.	Ovarian cancer	7.5%	7.5%
4.	Esophageal cancer	5.9%	5.9%
5.	Stomach cancer	3.2%	3.4%
6.	Endometrial cancer	2.9%	2.5%
7.	Lung cancer	2.6%	2.3%
8.	Thyroid cancer	2.0%	1.7%
9.	Colon cancer	1.6%	2.0%
10.	NHL	1.3%	1.4%

Table-3: Types of cancer in males in the hospitals of Mysore city

Sl no	Type of cancer	Percentage	
		2015	2016
1.	Lung cancer	9.3%	9.6%
2.	Esophageal cancer	8.9%	6.8%
3.	Stomach cancer	6.5%	7.4%
4.	Rectal cancer	3.2%	2.8%
5.	Prostate cancer	3.9%	3.5%
6.	BOT & tongue cancer	4.8%	5.6%
7.	Pyriform fossa	4.8%	3.4%
8.	Supraglottis cancer	2.5%	2.4%
9.	NHL	3.3%	2.4%
10.	HCC	2.9%	2.8%
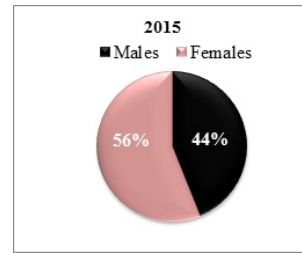
Fig-1: cancer patients in the year 2015
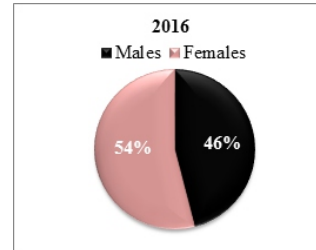
Fig-2: Cancer patients in the year 2016

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