

To Determine the Prevalence of Various Types of Cancers and to Examine the Most Frequent Type of Cases

Awais Anwar¹, Abdul Matin Qaisar³ and Amna Akram²

ABSTRACT

Objective: To examine the frequency of different types of carcinomas in patients whom were clinically diagnosed to have any type of cancer.

Study Design: Retrospective study

Place & Duration of Study: This study was conducted at the Department of Physiology, Shahida Islam Medical & Dental College Lodhran from June 2017 to June 2019.

Materials and Methods: One hundred and fifty patients of both genders clinically diagnosed to have various types of cancers were included. Patient's ages were 20 to 70 years. Patients detailed medical history, age, sex, residence were examined after taking informed consent. Patients with previous history of cancer treatment and patients with recurrence surgery were excluded. All the patients had received biopsy and sample sent to pathology lab for examination. Prevalence of different types of cancers was recorded.

Results: Eighty five (56.67%) patients were males and 43.33% were females. Thirty (20%) patients were ages 20-30 years, 45 (30%) patients had ages 31-40 years, 52 (34.67%) patients were ages between 41-50 years, 23 (15.33%) patients had ages above 50 years. Ninety (60%) patients had urban residency. Most of the females 35 (23.33%) patients had breast cancer. In males majority of patients had colon and rectum carcinoma type.

Conclusion: Majority of females had breast cancer and in males the colon and rectum carcinoma was the leading site. We should aware people about these malignant disorders. More work is needed to develop the better strategies for reducing the incidence rate of cancer.

Key Words: Cancer, Different Types, Prevalence, Gender

Citation of article: Anwar A, Qaisar AM, Akram A. To Determine the Prevalence of Various Types of Cancers and to Examine the Most Frequent Type of Cases. Med Forum 2019;30(12):32-35.

INTRODUCTION

Cancer is a major health problem in developed countries. Cancer is the leading cause of death in Canada (29%) and is the second leading cause of death in United States of America (USA), United Kingdom (UK) and Australia.¹⁻⁴ In USA, the leading types of cancer are in prostate, lung, colorectum and urinary bladder in men and breast, lung, colorectum and uterus in women. The leading causes of cancer deaths among men are lung, prostate and colorectal cancer and among women lung, breast and colorectal cancer.

¹. Department of Physiology / Biochemistry², Shahida Islam Medical & Dental College, Lodhran.

³. Department of Physiology, Niazi Medical & Dental College, Sargodha.

Correspondence: Dr. Awais Anwar, Associate Professor of Physiology, Shahida Islam Medical & Dental College, Lodhran.

Contact No: 0336-4483322

Email: awaisanwar157@gmail.com

Received: August, 2019

Accepted: October, 2019

Printed: December, 2019

In UK, Canada, Australia, the most leading types of cancer were in prostate, breast, lung and bowel. In Canada in 2007, lung cancer is the most commonly diagnosed type among all cancer deaths (27%) and prostate cancer is the leading one among men (27%) and breast cancer among women (28%). In Australia in 2007, the leading cancer in men was prostate cancer and in women breast cancer. In UK in 2009, prostate cancer was most common among males (25%) and breast cancer among women (30%). Cancer incidence is low in developing countries compared with high incidence in developed countries. The cancer incidence rate is 361/100,000 population in USA and about 300/100,000 in Europe compared with 100/100,000 in India.⁵ In some developing countries, cancer is also becoming a major health hazard. In China, cancer is the leading cause of death.⁶ The common cancers are in the lung, stomach, liver, esophagus and colorectum. Lung, liver and stomach cancer are the leading types in men and breast, lung and stomach cancer are the leading types in women.⁷

In India in 2008, 948,000 new cancer cases were diagnosed according to projected estimation. About 550,000 cancer deaths were estimated to occur. The leading cancer types in men were the oral and pharyngeal, stomach, lung and esophageal cancer and in women cervix, breast, stomach and esophagus.

Tobacco related cancers contributed to about 50% of all cancers. The estimated cancer mortality in India for the year 2000 was 157,168. According to World Health Organization, the estimated cancer deaths in India are projected to increase to 700,000 by year 2015.^{8,9} Recent study was conducted aimed to examine the frequency of different types of cancer. This study will be helpful for making strategies for carcinomas.

MATERIALS AND METHODS

This study was conducted at Department of Physiology, Shahida Islam Medical & Dental College Lodhran from 1st June 2017 to 30th June 2019. One hundred fifty patients of both genders clinically diagnosed to have various types of cancers were included. Patient's ages were 20 to 70 years. Patients detailed medical history, age, sex, residence were examined. Patients with previous history of cancer treatment and patients with recurrence surgery were excluded. All the patients had received biopsy and sample sent to pathology lab for examine the type of cancer. Prevalence of different types of cancers was recorded. Data was analyzed by SPSS 20.

RESULTS

There were 85 (56.67%) patients were males and 43.33% were females. 30 (20%) patients were ages 20 to 30 years, 45 (30%) patients had ages 31 to 40 years, 52 (34.67%) patients were ages between 41 to 50 years, 23 (15.33%) patients had ages above 50 years. 90 (60%) patients had urban residency and 60 (40%) patients had rural residency (Table 1). From all the 150 cancer cases, breast is the most common site of cancer 35 (23.33%) followed by colon and rectum 20 (13.33%), lymph node 15 (10%), stomach 12 (8%), Ovary Ca 10 (6.67%) cases, Liver cancer in 9 (6%), 8 (5.33%) had lungs cancer, 7 (4.67%) patients had uterus carcinoma, Pancreatic Ca had found in 6 (4%) patients, prostate cancer found in 6 (4%) patients, myeloma found in 6 (4%) patients, esophagus cancer found in 6 (4%) patients, Kidney Ca were found in 5 (3.33%) patients and 5 (3.33%) patients had thyroid carcinoma respectively (Table 2).

Table No.1: Demographical details of all the patients

Variable	No.	%
Gender		
Male	85	56.67
Female	65	43.33
Age (years)		
20 – 30	30	20.0
31 – 40	45	30.
41 – 50	52	34.67
> 50	23	15.33
Residence		
Urban	90	60
Rural	60	40

Table No.2: Distribution of different type of cancer in all the patients

Type of Cancer	No.	%
Breast Ca	35	23.33
Colon & Rectum Ca	20	13.33
Lymph Node Ca	15	10.0
Stomach Ca	12	8.0
Ovary Ca	10	6.67
Liver Ca	9	6.0
Lung Ca	8	5.33
Uterus	7	4.67
Pancreatic Ca	6	4.0
Prostate Ca	6	4.0
Myeloma	6	4.0
Esophagus	6	4.0
Kidney Ca	5	3.33
Thyroid Ca	5	3.33

Table No.3: Distribution of cancers type in males (n=85)

Type of cancer	No.	%
Colon & Rectum Ca	18	21.18
Lymph Node Ca	13	15.29
Stomach Ca	10	11.76
Liver Ca	7	8.23
Lung Ca	6	7.06
Pancreatic Ca	6	7.06
Prostate Ca	6	7.06
Myeloma	5	5.88
Thyroid Ca	5	5.88
Kidney Ca	5	5.88
Esophagus	4	4.71

Table No.4: Among females different types of cancer (n=65)

Types of cancer	No.	%
Breast Ca	35	53.85
Ovary Ca	10	15.38
Uterus	7	10.77
Colon & Rectum	2	3.08
Lymph node	2	3.08
Stomach cancer	2	3.08
liver cancer	2	3.08
lungs cancer	2	3.08
Esophagus	2	3.08
Myeloma Ca	1	1.54

According to the sex wise distribution of cancer, colon and rectum was the most common site of cancer in males and breast cancer was the most leading site in females. In males, 18 patients had colon and rectum carcinoma, 13 had lymph node cancer, stomach cancer found in 10 cases, 7 patients had liver cancer, 6 patients had lungs cancer, 6 patients had prostate cancer, 6 patients had pancreatic cancer, myeloma found in 5 cases, 5 cases had thyroid cancer, kidney cancer found in 5 cases and esophagus found in 4 patients

respectively (Table 3). Among females, 35 patients had breast Ca, ovary Ca found in 10 cases, uterus cancer found in 7 cases, colon and rectum found in 2 cases, lymph node cancer found in 2 cases, stomach cancer found in 2 cases, liver cancer found in 2 cases, lungs cancer found in 2 cases, esophagus cancer found in 2 cases and myeloma Ca found in 1 case respectively (Table 4).

DISCUSSION

Worldwide cancer is the leading cause of mortality and morbidity. There is a high rate of incidence of different types of cancer in the world.^{10,11} Many of studies have been conducted to examine the different types of cancer among males and females.^{12,13} The present study was conducted aimed to determine the prevalence of different types of cancer in patients visited outpatient oncology department in our institution. In our study the majority of patients were males 56.67% followed by females 43.33%. These results showed similarity to some other studies in which male patients population was high 52 to 65% as compared to females.^{10,14} In present study 64.67% patients were ages 30 to 50 years. These results were different to some other studies in which maximum cancer patients were ages 40 to 60 years.^{15,16} In present study 60% patients belongs to urban area and 40% patients had rural residency. These results were similar to the other study conducted in Pakistan regarding incidence of various types of cancer reported majority of patients had urban residence.¹⁷

In this study we found that breast cancer was the leading site of cancer among all types of cancer and accounted 23.33% overall followed by colon and rectum 13.33%, lymph node 10%, stomach 8%, ovary 6.67%, liver 6% and lungs 5.33%. A study conducted by Cherian et al¹⁸ reported breast cancer was the most leading site of cancer and found in 21.01% patient followed by colon and rectum, lymph node, stomach, ovary and liver and lungs. In the present study, according to the sex wise distribution of cancer, colon and rectum was the most common site of cancer in males and breast cancer was the most leading site in females. In males, 21.18% patients had colon and rectum carcinoma, 15.29% had lymph node cancer, stomach cancer found in 11.76% cases, 8.23% patients had liver cancer, 7.06% patients had lungs cancer, 7.06% patients had prostate cancer. These results showed similarity to some other studies in which colon and rectum, lymph node, stomach, liver and lungs cancer were the most common types of cancer in male patients population.^{19,20} Six patients had pancreatic cancer; myeloma found in 5 cases, 5 cases had thyroid cancer, kidney cancer found in 5 cases and esophagus found in 4 patients. In this study we found that among females 53.85% patients had breast Ca followed by ovary Ca found in 15.38% cases, uterus cancer found in 10.77% cases. Many of previous studies regarding

prevalence of different cancer type reported breast cancer was the most frequent type of cancer among females rated 40 to 60% followed by other types of cancer.^{21,22}

CONCLUSION

Cancer is the leading cause of mortality in the whole world. It is concluded that majority of females had breast cancer and in males the colon and rectum carcinoma was the leading site. We should aware people about these malignant disorders. More work is needed to develop the better strategies for reducing the incidence rate of cancer.

Author's Contribution:

Concept & Design of Study:	Awais Anwar
Drafting:	Abdul Matin Qaisar
Data Analysis:	Amna Akram
Revisiting Critically:	Awais Anwar, Abdul Matin Qaisar
Final Approval of version:	Awais Anwar

Conflict of Interest: The study has no conflict of interest to declare by any author.

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