

STUDENT SECTION

PROF-1389

PATTERN OF CANCER; AMONG THE PATIENTS OF THE ALLIED HOSPITAL

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ABSTRACT... Objective: To detect the types of cancer. **Design:** Retrospective cross sectional survey. **Settings:** Department of Clinical Oncology (Liaqat Ward) Allied Hospital Faisalabad. **Period:** From January, 1st 2005 to December, 31st 2005. **Materials and Methods:** The data was obtained from the hospital record and then was tabulated with respect of age, sex, and the type of cancer. This survey includes the patients who presented in the department of oncology with one type of cancer or other. **Results:** A total of 1087 patients met inclusion criteria for this survey. There were 526(48.2419%) male and 557(51.2419%) female patients, And 594 (54.65%) Urban and 493 (45.35%) Rural patients. Out of the total 1087 patients, 201 patients (18.4219%) presented with breast cancer, 60 patients (5.579%) presented with squamous cell carcinoma of the face and 58 patients (5.335%) were found to be suffering from brain tumor.

Key words: Cancer, Patients, Age group, Rural, Urban.

INTRODUCTION

Cancer is the leading cause of Morbidity and Mortality. Cancer may be regarded as a disease characterized by 1) Abnormal growth 2) Ability to invade adjacent tissues and even distant organs and 3) The eventual death of the affected patient if the tumor has progressed beyond the stage of successful removal.

Major categories of cancer are;

- ◆ Carcinomas; arising from the epithelial cells (e.g. mouth, esophagus, intestine, uterus)
- ◆ Sarcomas; arising from the mesodermal cells (e.g. fibrous tissue, fat and bone)
- ◆ Lymphomas; arising from the lymphoid tissue

Multi factorial etiology of Cancer;

Environmental factors:

- ◆ TOBACCO
- ◆ ALCOHOL; it is estimated that alcoholic consumption contributed to about 3% of all deaths due to cancer.
- ◆ DIETARY FACTORS; like smoked fish related to stomach cancer, dietary fiber to the intestinal cancer, beef consumption to the bowel cancer and a high fat to the breast cancer.

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- ◆ OCCUPATIONAL EXPOSURE; to benzene, arsenic, cadmium, chromium, vinyl chloride, asbestos and hydrocarbons.
- ◆ VIRUSES; like hepatitis B,C viruses related to hepatocellular carcinoma (HCC) Epstein – Barr virus (EBV) related to Burkett’s lymphoma and nasopharyngeal carcinoma
- ◆ PARASITES; like schistosomes related to bladder cancer.
- ◆ OTHER; Sunlight, radiation, water pollution, medications and pesticides.

Genetic factors

e. g. Retinoblastoma occurs in children of the same patient.

World Statistics about Cancer

Each year 10.9 million people all over the world are diagnosed with cancer and there are 6.7 million deaths from the cancer. There are 26.4 million people alive who have received a diagnosis of cancer in the last five years. About half of these people live in Europe and North America. Prevalence includes people with the diagnosis who will die and reflects both the incidence of cancer and its associated survival.

Incidence in the World:

	No. of new cases	%age
Africa	649,800	6
Asia	4,876,900	45
Europe	2,820,800	26
Latin America and Caribbean	833,000	8
North America	1,570,500	14
Ocenia	111,500	1
Developing countries	5,016,100	46
Developed countries	5,827,500	54
World	10,860,500	100

MATERIALS AND METHODS

Our survey was retrospective and included the patients who came to the department of oncology of Allied hospital during the period of January 1st 2005 to December 31st 2005.

The survey of included patients was extensive as the hospital record of each patient was checked individually. The data obtained was then tabulated with respect of age, sex and the type of cancer. The percentages in each category were obtained. The 10 most frequent types of cancers among the patients were highlighted and amongst them, the three most frequent types of cancers, breast cancer, squamous cell carcinoma and brain tumor were further elaborated in respect of their age groups, sex groups and area group distribution.

Statistical Analysis

Z-test, used to test the hypothesis that the proportions of male, and female are same, and the proportion of urban and rural are also same for the most frequent types of cancer.

RESULTS

Out of the total 1087 patients admitted in the department of clinical oncology Allied hospital Faisalabad, 201 patients (18.4219%) presented with breast cancer, 60 patients (5.579%) presented with squamous cell carcinoma of the face and 58 patients (5.335%) were found to be suffering from brain tumor. The further elaboration of these three frequent types of cancers among the patients in respect to maximum incidents of age group, sex distribution, urban and rural distribution is tabulated below.

Table-Age group of maximum incidence	
Type of cancer	Age (years)
Breast cancer	40-50
Sq cell ca of face	50-60
Brain tumor	40-50

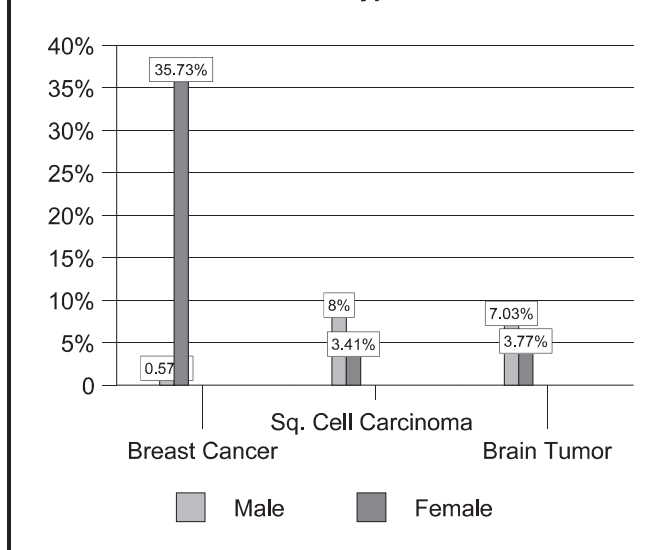
Table-Sex wise Distribution of most frequent cancer

Type of cancer	Male (Proportion)	Female (Proportion)	P value
Breast cancer	3(0.57%)	199(35.73%)	-
Sq cell carcinoma	41(7.79%)	19(3.41%)	0.003
Brain tumor	37(7.03%)	21(3.77%)	0.023

Table-Area wise distribution of most frequent cancer

Type of cancer	Urban (Proportion)	Rural (Proportion)	P value
Breast cancer	92 (15.49%)	109(22.11%)	0.008
Sq cell carcinoma	16(2.69%)	44 (8.92%)	-
Brain tumor	43 (7.24%)	15 (3.04%)	0.004

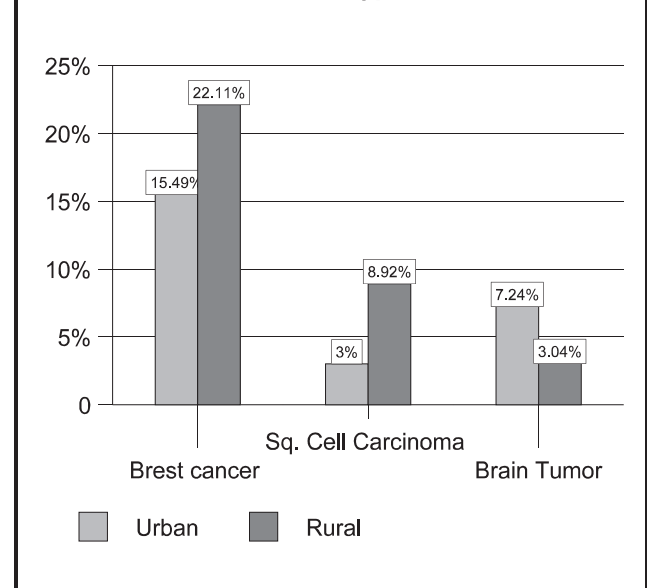
Fig- Sex wise distribution of most frequent cancer type



It indicates that age group of maximum incidents for all the three types of cancers 40-60 years. Moreover rural population is significantly more affected than the urban population for the Brest cancer and Sq. cell carcinoma, while urban population is significantly more affected than

the rural population for Brain tumor.

Fig- Area wise distribution of most frequent cancer type



DISCUSSION

In our survey we followed the pattern of international statistics of cancer. The highest incident of cancer world wide has been found to be of lung cancer. Breast cancer ranked 2nd in the world. Third most frequent type of cancer was found to be Bowel cancer. One astounding fact that came across in the light of our survey was that breast cancer ranked 1st in the patients admitted in the clinical oncology department during the year 2005. The proportion of male and female, having Breast cancer, Sq. cell carcinoma and Brain tumor, is statistically significant as p-value is 0.000, 0.003 and 0.023 respectively. The proportion of urban and rural having Breast cancer, Sq. cell carcinoma and Brain tumor is statistically significant as p-value is 0.008, 0.000, and 0.004 respectively. It means that rural females are more likely to develop breast cancer and Sq. cell carcinoma, while urban males are more likely to develop Brain tumor. It was further found that the incidence was maximum in the age group 40-50 years. Most of the patients diagnosed belong to the rural areas. This can be attributed to the lack of awareness of the cancer, lack of resources, more exposure to the cancer causing

agents and ignorance on the part of the patients. Most of the time the patients of cancer in our community report to the hospital at the time when their disease had progressed to an advanced stage.

CONCLUSION AND RECOMMENDATIONS

1. There is a need to study the risk factors responsible for these three types of cancer.
2. A programme to literate the people about the cancer should be started.
3. Females should be taught about self breast examination.
4. If any suspicion is found, like any swelling on any part of the breast then the triple assessment should be carried out.
5. Facilities regarding the diagnosis of the cancer should be provided at the route level.
6. Media should be used to make the people aware of the hazards of the certain risk factors causing cancer, like smoking and alcoholism.

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