

## PREVALENCE OF MALIGNANCY AMONG THE FARMERS IN PROVINCE OF PUNJAB, PAKISTAN

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### ABSTRACT

**Background:** Malignancy includes as a noteworthy supporter of the weight of sickness in this day and age. It is the second driving reason for death all inclusive. Everyday schedules and environmental elements are considered reasons for growth although tumor is an overwhelming sickness it is to a great extent preventable. In the event that we have the satisfactory information about malignancy patients, at that point by applying suitable measures, an extraordinary effect on lessening the worldwide disease weight can be accomplished. **Objective:** To find the prevalence of malignancy among the formers of Punjab province of Pakistan. **Methods:** A retrospective study was conducted targeting major hospitals in Punjab. The study included all

Patients diagnosed with any type of malignancy histopathologically between Jan 2010 to Dec 2017, who was farmers by profession. During the study, the incidences of malignancy, their types, year of diagnosis, age, gender, marital status, ethnic group, and occupations and other risk factors and specifications have been carried out. **Results:** A total of 252 valid cases were reported of different malignancies which were prevalent in farmers belonging to Punjab province. The maximum no of cases from head and neck which were 91. Where the blood cancer cases reported 51 and Respiratory 27 as well as brain and nervous system 27. The minimum cases among the framers reported Genito/urinary 17. **Conclusion:** The farmers are in danger of improvement of different diseases from the word related introduction to

chemicals/Malignancy-causing agents in a type of pesticides and different vapors from cultivating hardware and bright radiation.

**KEYWORDS:** Malignancy, Farmers, Punjab, Pakistan.

## INTRODUCTION

Malignancy includes as a noteworthy commitment to the weight of infection in this day and age. It is being positioned highest among the executioner sicknesses of the world. Growth is the second driving reason for death all around, and was in charge of 8.8 million passing's in 2015 comprehensively; almost 1 of every 6 passing's is because of malignancy.<sup>[1]</sup> This worldwide effect of a tumor is extremely very much considered Pakistan where an expected 63, 451 new malignancy cases (roughly 174 new disease cases analyzed every day) showed up in 2012 in the Pakistani male population.<sup>[2]</sup> A substantial assortment of growths have been accounted for in the writing late it is being stressed that individuals are hereditarily inclined to build up specific malignancies as well as people socio-statistic profile may likewise have an impact in the advancement of diseases. Provincial contrasts in malignancy frequencies are most likely because of hereditary variety inside tenants, divergence in day by day schedules, biological exposures and restorative administrations e.g. Screening stays some driving reasons for malignancy risk.<sup>[3]</sup> The growth profile shifts in various parts of the world and an epidemiological examination knows the basic tumors common specifically fragments of a populace and the hazard factors involved.<sup>[4, 5]</sup>

Punjab is the most populated province of Pakistan with the majority of the population linked with agriculture industry in one or other way, as a result, farming makes up to the top of the List of common occupations in Punjab. Farming is a job involving tough physical work and Makes a farmers life a total opposite of sedentary lifestyle.<sup>[6]</sup> It is evident through lower Mortality rate among farmers as compared to general population.<sup>[7, 8]</sup> Despite low mortality From all causes combined, surveys of occupational groups and studies of specific tumors Suggest that farmers may have elevated incidence and mortality rates for certain Malignancies.<sup>[9]</sup> Higher Malignancy incidence contrary to low mortality rate among farmers Probably results from occupational exposure to chemicals/carcinogens in form of pesticides And other fumes from farming machinery and ultraviolet radiation.

However, there is a clear message of hope: Although Malignancy is a devastating disease it is largely preventable. If we have the adequate data about Malignancy patients, then by

Applying appropriate measures, a great impact on reducing the global Malignancy burden can be achieved. And one of the instruments for data collection of Malignancy patients is their Registration.<sup>[10]</sup> The epidemiological analysis of Malignancy among farmers will reveal a better understanding of the burden of disease and will provide an insight for development of specific health measures focusing on prevention and early treatment of Malignancies.

### **Experimental**

A retrospective study was conducted targeting major hospitals in Punjab providing oncological services; these included hospitals spread over 5 major cities of both public and private sector. The data has been collected from each patient's file register in oncology wards. The study included all patients diagnosed with any type of malignancy histopathologically between Jan 2010 to Dec 2017, who were farmers by profession. During the study, the incidences of malignancy, their types, year of diagnosis, age, gender, marital status, ethnic group, and occupations and other risk factors and specifications have been noted. A total of 252 out of 4443 diagnosed cases of malignancy were farmers and were included in the study. The classification of different malignancies has been done as per international classification coding system by W.H.O (ICD-10).<sup>[11]</sup>

Data entry and analysis was done by using IBM SPSS 21. Descriptive statistics like mean and percentage were used. Technical and ethical approval was obtained for the study.

### **RESULTS**

#### **Socio-demographic profile of participants**

A total of 252 valid entries were considered the mean age of the patients was 45 years. Majority of the people were males with only 17 being females. 88% of the patients were married. The included patients belonged to various ethnic groups the Saraikies 38% and Punjabis 36% made the bulk other ethnic population included, Baloch's, Pukhtoon's, Kashmiris, Sindhi and Hindko's.

Ethnic Group	Population(%)
Afghani	2.0
Balochi	.8
Balti	1.2
Gilgiti	2.8
Hazara	.8
Hindko	4.0
Punjabi	36.1
Pushto	1.2
Saraiki	38.1
Sindhi	13.1
Total	100.0

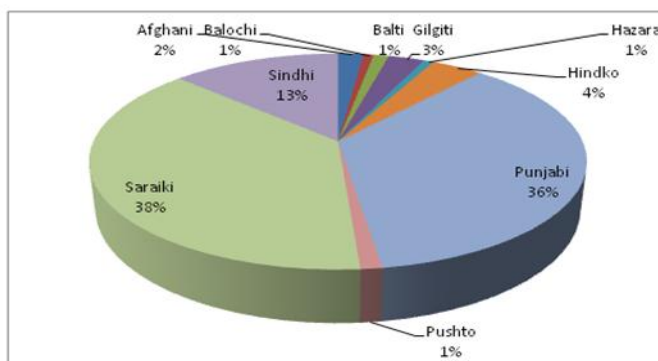


Figure No: 01 Ethnic Distribution.

**Malignancies Incidence**

Figure 2.0 shows the incidence of Malignancy and number of cases being reported in each year. Maximum numbers of cases were reported in the year 2017, whereas least cases were reported in 2014 and 2015. Numbers of cases reported in years 2014 and 2015 were 16 and 17 respectively. Head and Neck Malignancy was most prevalent being reported in about 36% of the cases, followed by blood malignancies 51 cases were reported. Breast Malignancy still was number one among females accounting for 41% of female cases. GIT Malignancies were a least common variant and is reported only in 2.8%. Table 2.0 show complete prevalence of malignancies among farmers.

Year	No of Cases
2010	36
2011	38
2012	39
2013	36
2014	16
2015	17
2016	30
2017	40
Total	252

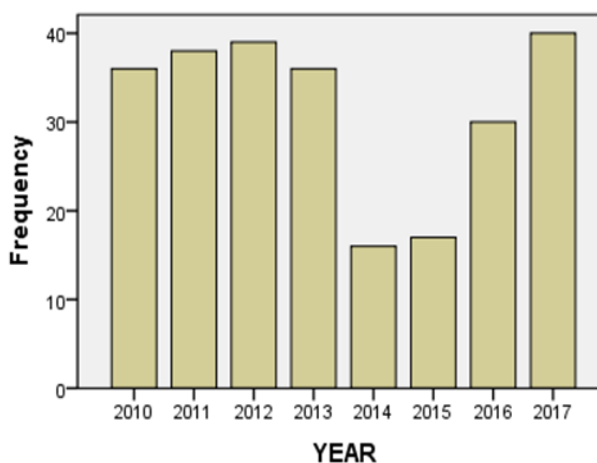
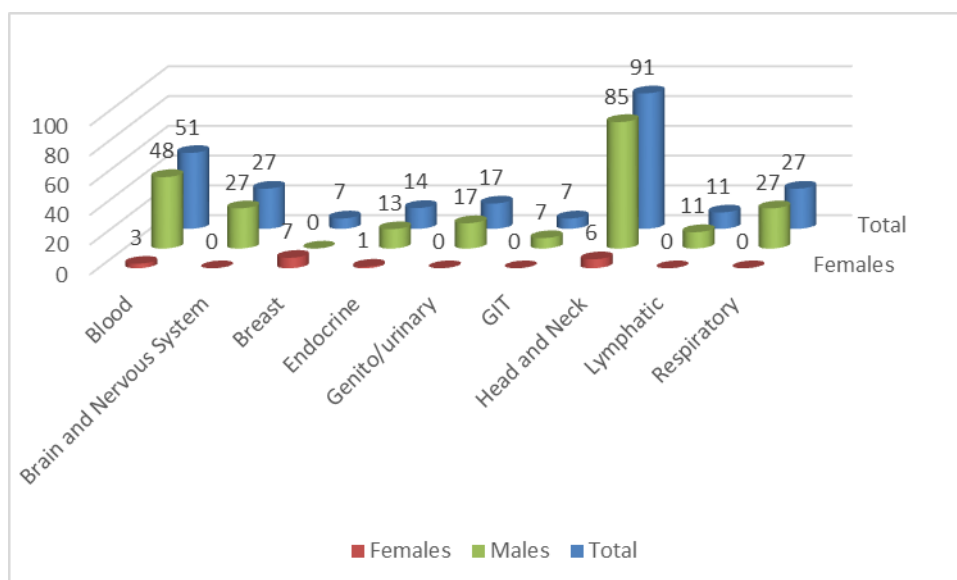


Figure 2.0 Incidence of malignancies annually from 2010 to 2017.

**Table 2: Prevalence of Malignancies.**

Malignancy Types	No of Cases	Cases In Males	Cases in Females
Blood	51	48	3
Brain and Nervous System	27	27	0
Breast	7	0	7
Endocrine	14	13	1
Genito/urinary	17	17	0
GIT	7	7	0
Head and Neck	91	85	6
Lymphatic	11	11	0
Respiratory	27	27	0

**Figure 03: Prevalence of Malignancies.****DISCUSSION**

The objective of the present investigation, the occurrence of malignancy in farmers is 5% of the aggregate growth patients announced from 2010 to 2017 in Punjabi agriculturists. Cultivating isn't just constrained to guys, however, females likewise take an interest in cultivating and are normal among working ladies at Punjab.

The information recommends that occurrence of disease among ranchers is expanding in years 2010 to 2013, checked diminishment in cases is seen in 2014 and 2016, though again an Exponential bring is seen up in 2017, the rising pattern of frequency is steady with the national pattern. No undeniable reason for the diminished number of cases in 2014-15 is recorded.

The most often detailed tumor among farmers is head and neck disease which incorporate dangerous neoplasm of lip, oral depression and pharynx, this finding is reliable with other comparative examinations completed globally.<sup>[9]</sup> The higher rate of lip growth has been credited to the long introduction to sunlight based radiations and bright beams exposure.<sup>[12]</sup> The universal writing reports the high occurrence of lymphoid neoplasm among farmers<sup>[13, 14]</sup> but is observing haven't revealed lymphoid neoplasm to be much normal and were accounted for just in 11 patients out of 252, then again, neoplasm of hematopoietic tissue were more typical and announced in 20% of the cases.

The frequency of tumors among female farmers was not unique in relation to females having a place with another field of works; most common growths were breast (41%), head and neck (35%), blood (17%).

## CONCLUSION

Farmers being and the critical constituent of agribusiness industry merits consideration from the wellbeing division particularly for early identification and treatment choices. The agriculturists are in danger of advancement of different tumours the higher frequency of hematopoietic neoplasm among Punjab ranchers must be mulled over and future investigations should be completed. The agriculturists should be instructed about the early indications of the malady and must be urged to look for medicinal consideration. The present examination opens the entryway for additional research and takes a shot at the basic diseases among ranchers in the nation.

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