

PREVALANCE OF CANCER DISEASE IN DISTRICT BUNER PAKISTAN

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ABSTRACT

Background: Cancer is a disease whereby affected body cells grow uncontrollably and deprive normal body cells of nutrients and appropriate function. The world health organization (WHO) fact sheet for February 2017 named Cancer as one of the major causes for deaths around the globe with 8.8million deaths in 2015 resulting in 1 per every 6 deaths being cancer mediated.

Objective: The present study was conducted on prevalence of Cancer male and female population of district Buner, during July 2022 to July 2023.

Methods: A total of 650 Patients cases were interviewed through questionnaires. During the study different problems regarding cancer were studied like Spicy food, Cold drink, Aggressive, Mental disturbance, Brest cancer, Stomach Cancer, Biopsy, PCR, Hair fall, Fatigue, Fever, Surgery, Medicine, Lung Cancer, and Liver cancer.

Results: We reported about a total cases of Cancer diseases in District Buner are 650. In these cases we investigated 114(17.53%) cases of Breast Cancer, 160(24.16%) cases of Lung Cancer, 85(13.07%) cases of Liver Cancer, 27(4.15%) cases of Prostate Cancer, 36(5.53%) cases of Stomach Cancer, 130(20%) cases of Blood Cancer, 23(3.53%) cases of Bone Cancer, and 75(11.53%) cases of Intestine Cancer all these cases are found in district Buner.

Conclusion: During the study we report a total cases of Cancer patient's 650 in which males are 344 and females are 306. The ratio of Cancer disease is higher in the peoples having age 40 to 60 years and lower in age 20 to 40 years. The most effected Tehsil are Gadaizi due to blasting, mining and Daggar. Cancer disease is rare in Tehsil Chagharzi and Tehsil Mandanr.

Keywords: Prevalence, cancer disease, district. Buner, Pakistan.

INTRODUCTION

Cancer is a disease whereby affected body cells grow uncontrollably and deprive normal body cells of nutrients and appropriate function. The world health organization (WHO) fact sheet for February 2017 named Cancer as one of the major causes for deaths around the globe with 8.8million deaths in 2015 resulting in 1 per every 6 deaths being cancer mediated. A study done in 2012 regarding cancer prevalence in Pakistan, it was found that almost 63,415 males and 85,590 females were diagnosed with the disease after cardiovascular disorders for maximum deaths in the world(1).

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Cancer is a chief concern and a leading cause of mortality worldwide. Cancer is a non-communicable disease characterized by uncontrolled abnormal division of cell. In the past few years, an upward trend was seen in health burden due to prevalence of non-communicable diseases(2).

There are very few studies about the incidence and prevalence of cancer in Pakistan. Previously there are only two cancer registries located in Karachi and Lahore cities and recently (in 2015) National Cancer Registry was established in Pakistan Health Research Council (PHRC) Islamabad(3).

Billions of cells join together to assemble human body and each cell undergoes the process of birth and death. The uncontrolled division and growth of cells may lead to cancer. The tumor (benign or malignant) is occurring when the extra tissues swell together without inflammation. If a tumor enlarges, it moves to which is known as metastasizing. Early diagnosis is the only way to survive. The new cancer incidences in Asia may elevate to 7.1 million till 2020, if no changes are introduced in prevention(2).

It accounts for about 23 and 7% deaths in USA and India, respectively. The world's population is expected to be 7.5 billion by 2020 and approximations predict that about 15.0 million new cancer cases will be diagnosed; with deaths of about 12.0 million cancer patients(4).

It is estimated that in future the burden of cancer will markedly rise due to the lifestyle adoption which are linked with increased risk of cancer i.e. smoking, physical inactivity, improper diet and a decreased number of pregnancies in economically developing countries(5).

Worldwide, there are over 10 million new cases of cancer annually (4.7 million in developed countries; 5.5 million in less developed countries) and more than 6 million cancer deaths. It is estimated that there will be 15 million new cancer cases every year by 2020 and 10 million cancer deaths. To reduce this prediction of doom National Cancer Control Programs (NCCP) are recommended in countries with a significant cancer burden and rising trends of risk factors. Such public health programs should be designed to reduce the incidence and mortality of cancer and improve the quality of life of cancer patients in a particular country or state(6).

Cancer is becoming a serious health threat in many Asian countries and it has become the leading cause of death in Asian Pacific countries such as Japan and Korea. Most commonly diagnosed cancers in Asia are in the order of lung, breast, colon and rectum, and the leading causes of cancer deaths are lung, stomach and liver. In year 2000, there were over 3 million new cancer cases and over 2 million cancer deaths in Asia. There is an increasing trend in breast, prostate and colon cancer, which are regarded as the cancer of economically developed countries. Although breast and prostate cancer rates are still lower in Asian countries than in western countries. The number of new cases of cancer in Asia is 7.1 million(7).

Pakistan is an Islamic Republic in Southern Asia, bordering the Arabian Sea (30 00 N, 70 00 E). It is situated between India on the east, Iran and Afghanistan on the west and China in the north. The total area of Pakistan is 803,940 sq km, 778,720 sq km of land and 25,220 sq km of water. Largely an agricultural country the arable land constitutes 27.87% of the total land area. The climate is mostly hot, dry desert, becomes temperate in northwest and arctic in the north. The terrain is flat Indus plain in the east; mountains in north and northwest; and the Baluchistan plateau in the west. According to the Pakistan National Cancer Registry, the incidence of cancer is increasing in the country, with an estimated 148,000 new cases of cancer reported in Pakistan(8).

MATERIALS & METHODS

Study area:

District Buner is located in the north of Khyber Pakhtunkhwa bordering upper Swat on the north, Malakand mate of Buner district is moderate. During summer season, the climate is hot in the Agency on the west, Mardan District on the south and Hazara Division on the east. Buner is a Sanskrit word which means forest, which seems to be true because Buner is rich in forestry.

Buner with an area of 1760 square kilometers lies between 34°-9' and 34°-43' N latitudes and 72°-10' and 72°-47' E longitudes. The climate lower Buner (Ambela) but pleasant in the upper parts (Gadezai and Gokand). The summer season is short and mild(9).

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RESULTS

Cancer is a disease in which some of the body's cells grow uncontrollably and spread to other parts of the body. The present study was conducted on prevalence of Cancer males and females population of district Buner, during July 2022 to July 2023. A total of 650 Patients cases were interviewed through questionnaires. During the study different problems regarding cancer were studied like Spicy food, Cold drink, Aggressive, Mental disturbance, Breast cancer, Stomach Cancer, Biopsy, PCR, Hair fall, Fatigue, Fever, Surgery, Medicine, Lung Cancer, and Liver cancer. We collected the total cases of Cancer diseases of six Tehsils in district Buner are 650. In these cases we investigated 114(17.53%) cases of Breast Cancer, 160(24.16%) cases of Lung Cancer, 85(13.07%) cases of Liver Cancer, 27(4.15%) cases of Prostate Cancer, 36(5.53%) cases of Stomach Cancer, 130(20%) cases of Blood Cancer, 23(3.53%) cases of Bone Cancer, and 75(11.53%) cases of Intestine Cancer all these cases are found in district Buner. During the study we collect total cases of Cancer patient's 650 in which males are 344 and females are 306. The ratio of Cancer disease is higher in the peoples having age 40 to 60 years and lower in age 20 to 40 years. The most effected Tehsil are Gadaizi due to blasting, mining and Daggar. Cancer disease is rare in Tehsil Chagharzi and Tehsil Mandanr.

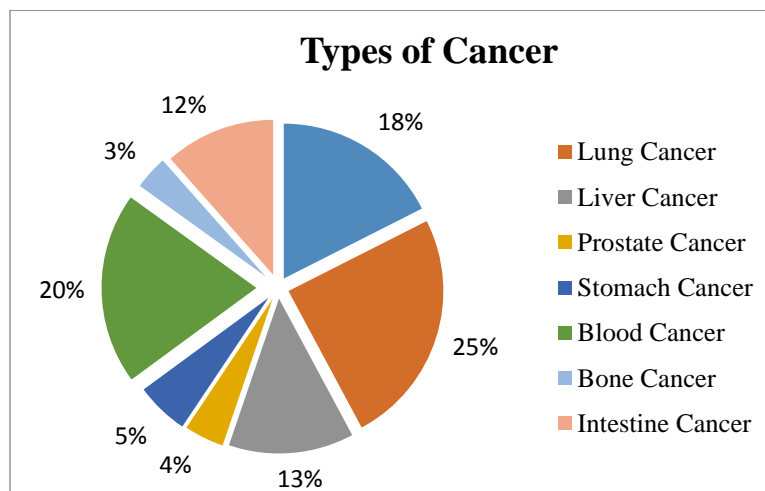


Figure 1 representing the different types of Cancer in district Buner.

Figure 1 representing the total cases of Cancer in district Buner it's about 650 cases. In these cases we investigated 114(17.53%) cases of Breast Cancer, 160(24.16%) cases of Lung Cancer, 85(13.07%) cases of Liver Cancer, 27(4.15%) cases of Prostate Cancer, 36(5.53%) cases of Stomach Cancer, 130(20%) cases of Blood Cancer, 23(3.53%) cases of Bone Cancer, and 75(11.53%) cases of Intestine Cancer all these cases are found in district Buner.

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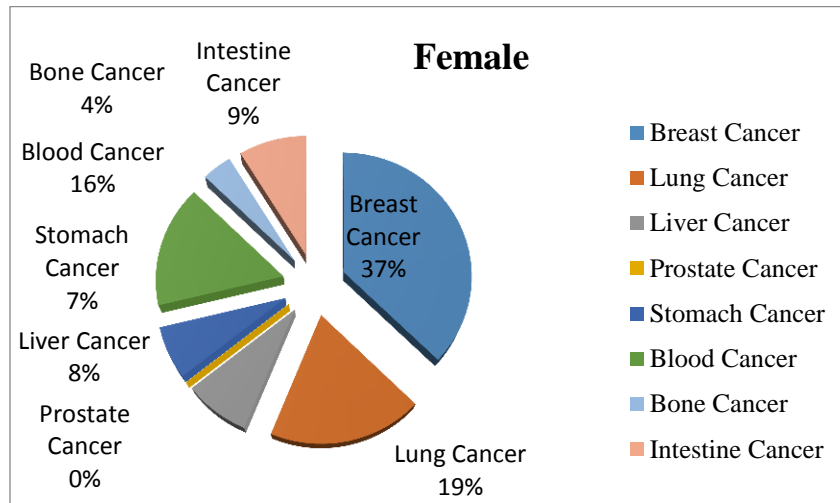


Figure 2 Shows different types of Cancer in Female of District Buner.

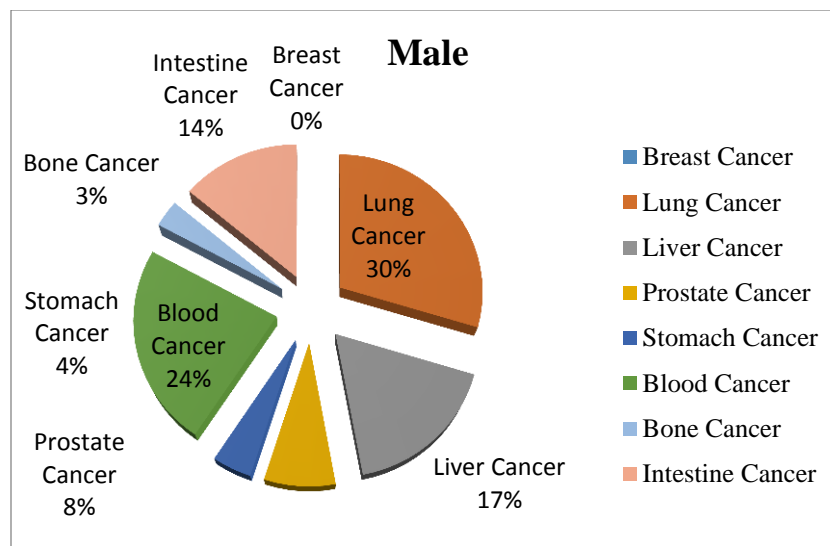


Figure 3 Shows different types of Cancer in Male in District Buner.

The figure 2 and 3 representing the different types of cancer in female and male of district Buner. Breast Cancer in females are 114(37.25%), Lung Cancer in males are 102(29.65%) in females are 58(18.95%), Liver Cancer in males are 60(17.44%) in females are 25(8.16%), Prostate Cancer in males are 27(7.84%), Stomach Cancer in males are 15(4.36%) in females are 21(6.86%), Blood Cancer in males are 81(23.54%) in females are 49(16.01%), Bone Cancer in males are 11(3.19%) in females are 12 (3.92%) and Intestine Cancer in males are 48(13.95%) in females are 27(8.82%).

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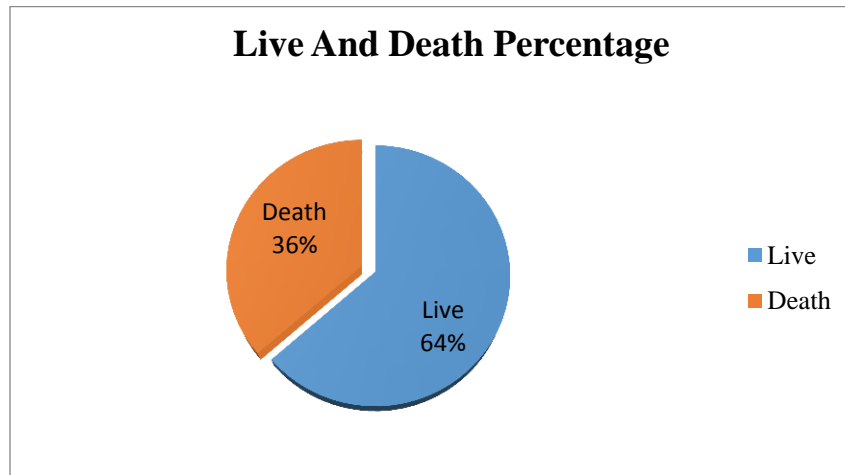


Figure 4 Representing the ratio of Live and Death ratio of Cancer in district Buner.

The figure 4 show live and death percentage of Cancer disease in district Buner. We reported 650 cases of Cancer disease in district Buner in which 413(63.53%) peoples are alive and 237(36.46%) peoples are die due to cancer.

DISCUSSION

Cancer is a disease in which some of the body's cells grow uncontrollably and spread to other parts of the body. The present study was conducted on prevalence of Cancer males and females population of district Buner, during July 2022 to July 2023. A total of 650 Patients cases were interviewed through questionnaires. During the study different problems regarding cancer were studied like Spicy food, Cold drink, Aggressive, Mental disturbance, Brest cancer, Stomach Cancer, Biopsy, PCR, Hair fall, Fatigue, Fever, Surgery, Medicine, Lung Cancer, and Liver Cancer. We collected the total cases of Cancer diseases of six Tehsils in district Buner are 650. In these cases we investigated 114(17.53%) cases of Breast Cancer, 160(24.16%) cases of Lung Cancer, 85(13.07%) cases of Liver Cancer, 27(4.15%) cases of Prostate Cancer, 36(5.53%) cases of Stomach Cancer, 130(20%) cases of Blood Cancer, 23(3.53%) cases of Bone Cancer, and 75(11.53%) cases of Intestine Cancer all these cases are found in district Buner. During the study we collect total cases of Cancer patient's 650 in which males are 344 and females are 306. The ratio of Cancer disease is higher in the peoples having age 40 to 60 years and lower in age 20 to 40 years. The most effected Tehsil are Gadaizi due to blasting, mining and Daggar. Cancer disease is rare in Tehsil Chagharzi and Tehsil Mandanr.

According to Dutta *et al.*, 2019 Among the Asian countries, higher number of new cases was registered in China, Japan, India, Republic of Korea and Bangladesh. These five countries represent 88% of all GBC seen in Asia. India accounts for 10% of the global burden of GBC. Among the Asian countries, Maldives, Yemen, Tajikistan, Turkmenistan and Uzbekistan have less than 0.1/100,000 age standardized incidence rate (14)(10).

In our study we found more than 178000 new Cancer cases are diagnosed in Pakistan. We collected total cases of Cancer disease 650 in six Tehsils of District Buner in which the percentage of Breast Cancer are 17.53% percentage of Lung Cancer are 24.16% percentage of Liver Cancer are 13.07% percentage of Prostate Cancer are 4.15% percentage of Stomach Cancer are 5.53% percentage of Blood Cancer are 20% percentage of Bone

Cancer are 3.53% and percentage of Intestine Cancer are 11.53%. The most effected Tehsil is Dagger. According to Chher *et al.*, 2018 A totals of 1634 subjects were recruited. Prevalence of OML for this population was 54.1%. Linea Alba was the most common lesion seen (28.7%). This study showed an overall OPMD prevalence of 5.6%. The most common type of OPMD was leukoplakia (64.8%), followed by lichen planus (30.8%). Subjects who only smoked were found to have an increased risk for OPMD of almost four-

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fold (RR 3.74, 95%CI 1.89–7.41). The highest risk was found for betel quid chewers, where the increased risk

observed was more than six times (RR 6.75, 95%CI 3.32–13.72). Alcohol consumption on its own did not seem to confer an increased risk for OPMD, however when practiced concurrently with smoking, a significant risk of more than five times was noted (RR 5.69 95%CI 3.14–10.29)(11).

In our study we collected total cases of Cancer disease 650 in six Tehsils of District Buner. In the total 650 cases Stomach Cancer is 5.53%. Stomach Cancer is very rare in the peoples having age below 20 years and more common in the peoples have age from 40 to 60 years.

According to Loree *et al.*, 2019 From July 2008 to June 2018, reporting of race and diversity of race representation was poor in oncology trials that led to FDA oncology drug approvals. Race was not reported in more than one-third of these trials (n = 85). Among trials that documented race, representation of blacks and Hispanics was very low relative to US cancer population estimates. Although prior studies demonstrated underrepresentation of racial/ethnic minorities in clinical trials, these studies were restricted to NCI-funded trials and did not necessarily affect patient care. Our study highlights the presence of these disparities, even among pivotal trials informing new drug approvals for the US populace with cancer. With efforts such as the Affordable Care Act attempting to improve access to standards of care, we demonstrate a pressing need to improve representation in cancer research(12).

In the present study from July 2022 to July 2023 we investigated that the prevalence of Cancer disease are more common in District Buner. We mention in our research overall eight types of Cancer disease in which Lung and Breast Cancer are more common than the other types of Cancer disease.

CONCLUSION

Cancer is a chief concern and a leading cause of mortality worldwide. Cancer is a non-communicable disease characterized by uncontrolled abnormal division of cell. The present study was conducted on the prevalence of Cancer Disease in district Buner during July 2022 to July 2023. During the study we collect total cases of Cancer patient's 650 in which males are 344 and females are 306. The most effected Tehsil are Gadaizi due to blasting, uranium particule and mining. The ratio of Cancer disease is higher in the peoples having age 40 to 60 years and lower in age 20 to 40 years.

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