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Original Research Article

PROFILE OF CANCER PATIENTS AT A TERTIARY CARE HOSPITAL IN PIRPANJAL REGION OF JAMMU AND KASHMIR

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Abstract

Background: Cancer is a leading cause of death worldwide with incidence of 19 million cases and 10 million deaths in year 2020. The global cancer burden is expected to grow further over the years. The present study intends to study the cancer patient profile in our tertiary care hospital.

Material and methods: This was a retrospective study of all patients registered in our newly established Govt Medical college, Rajouri from 2019-2022. This study includes patient's demographic details, type of cancer and treatment details.

Results: In this retrospective study a total of 291 pathological confirmed cancer patients were registered in department of Radiation Oncology. Of all patients registered 136 patients (47%) were males while 155 patients (53%) were females. Around 80% of patients were from District Rajouri, 19% from District Poonch and 1% from other Districts. Maximum cases registered in the year 2022 (28.5%) and minimum in the year 2021(19.5%). A maximum patient belongs to age group 20-60 years (56%). Data regarding types of cancers shows, most common cancers in males were Lung cancer (7.2%) and in females were breast cancer(7.5%). Overall most common cancers combined both sexes were lung cancer (8.5%). Majority of patients were diagnosed/presented in stage IV followed by stage III. Chemotherapy (66%) was the most common treatment modality.

Conclusion: Gastrointestinal, lung cancers, breast cancers were the common cancers in this region. While majority of cancers were diagnosed at late stages.

Keywords: cancer, gastrointestinal, lung, breast

Introduction

Cancer is a condition in which a group of cells grow abnormally forming a tumor and invade to other parts of the body. Cancerous cells have the ability to bypass the checkpoints in cell cycle.[1] About 14 million new cancer cases and 8 million deaths occur per year globally as international agency for research on cancer report on world cancer statistics.[2] The incidence of cancer is going

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to further increase to 1.8 million new cases per year by 2026.[3] Cancer is the second most common disease after cardiovascular disorders for maximum deaths in the world.[4] The International Agency for Research on Cancer GLOBOCAN project has predicted that India's cancer burden will nearly double in the next 20 years, from slightly over a million new cases in 2012 to more than 1.7 million by 2035.[5] The number of deaths due to cancer is expected to rise from 680,000 in 2012 to 1.2 million in 2035 years.[5] The number of cancer cases amongst males is estimated as 3.9 lacks and among females as 4.3 lacs. Among Indian women, cancers of the cervix/ovary and breast account for nearly 60% of all cancers (. In the world the proportion of cancers in man in the decreasing order is Prostate (33%) Lung and Bronchus (13%), Colon and Rectum (11%), Urinary Bladder (6%), Skin (4%) NHL (4%), Kidney (3%), Leukemia (3%), Oral cavity (3%) & Pancreas (2%) and in females it is Breast (32%), Lung+Bronchus (12%), Colon +Rectum (11%), Uterine+Corpus (6%), Ovary (4%), NHL (4%), Skin (4%), Thyroid (3%), Pancreas (2%) & Urinary Bladder (2%).[6] J&K is the northern-most state of India. Over the last decade, an increasing trend has been observed in the incidence of cancer in J&K.[7] PirPanjal region is distinct from the other regions of the India in terms of demography, climate, diaetery habits and tribal life style. It is worthwhile to study the profile of cancer patients in PirPanjal regions.

Material and Methods

This is the retrospective study carried out in the Department of Radiation Oncology in newly established Govt Medical College Rajouri. Before the commencement of the study ethical approval was taken from the ethical committee of the institute and written informed consent was taken from the patient after explaining the study to them. Patient details were collected with collaboration of other allied departments. All histopathological confirmed cancer patients visiting in our hospital were registered. All registered patients from 2019- 2022 were included in the study for analysis. The data of various cancer cases were collected. Descriptive analysis was used for the study to report the results in terms of age, sex, type of cancer, stage of cancer and treatment received. Statistical Package of Social Sciences (SPSS) 16.0 version was used to analyze the data. Chi square test was performed and $P<0.05$ was considered significant.

Results

In this retrospective study a total of 291 pathological confirmed cancer patients were registered in department of Radiation Oncology. Of all patients registered 136 patients (47%) were males while 155 patients (53%) were females. Around 80% of patients were from District Rajouri, 19% from District Poonch and 1% from other Districts.

Table 1: Total patients registered

Year	Number	Percentage
2019	70	24
2020	81	27
2021	57	19.5
2022	83	28.5
Total	291	100

Maximum cases registered in the year 2022 (28.5%) and minimum in the year 2021(19.5%).

Table 2: Distribution according to age

Age Groups	Number	Percentage
< 20yrs	07	3
20-60 yrs	164	56
>60 yrs	120	41

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Maximum patients belongs to age group 20-60 years(56%).

Table 3: Common Cancers in Males

Type of Cancer	Number	Percentage
Lung Cancer	21	7.2
NHL	16	5.4
Prostate Cancer	14	4.8
Gall bladder/CholangioCa	13	4.3
Esophageal Cancer	09	4

Data regarding types of cancers shows, most common cancers in males were Lung cancer(7.2%) followed by Non Hodgkin's lymphoma (5.4%) and prostate cancer(4.8%).

Table 4: Common Cancers in Females

Type of Cancer	Number	Percentage
Breast Cancer	22	7.5
Ovarian Cancer	12	4.1
Other Gynecological	08	2.7
Gall bladder/CholangioCa	06	2
Colorectel Cancer	06	2

The most common cancers in females were breast cancer(7.5%) followed by ovarian cancer(4.1) and other gynecological cancers (2.7%).

Overall most common cancers combined both sexes were lung cancer (8.5%), Breast Cancer (8%), Gall bladder/CholagioCa (7.5%), Colorectel cancers(4.8%) and CaEsophagous (4%). Regarding addiction study has shown 17% of patients have history of smoking, 8% Tobacco consumption and 5% alcohol consumption.

Table 5: Distribution according to stage of cancer

Stage of Cancer	Percentage
Stage I	1.5
Stage II	17
Stage III	39
Stage IV	42

Patients were diagnosed with stage I (1.5%), Stage II (17%), stage III (39%) and stage IV (42 %). Majority of patients were diagnosed/presented in stage IV followed by stage III.

Table 5: Distribution according to different type of treatment modality

Treatment modality	Percentage
Surgery	25
Radiation therapy	20
Chemotherapy	66
Multi modality treatment	31
No treatment	16

Different types of Treatment modalities received include surgery (25%), Radiation Therapy (20%), Chemotherapy (66%) and multi modality treatment (31%) of patients respectively. Around 16 % of total patients received no treatment.

Discussion

Cancer incidence pattern varies from country to country, and in a geographically distinct country like India, the incidence pattern differs from one region to another. Furthermore, developing

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countries like India tend to have a lower cancer incidence of approximately 100/100,000 compared with about 361/100,000 in the USA. The main reason for this disproportionate incidence is higher mortality due to infectious disease in developed countries than in developing countries; additionally, as aging increases, the chances of developing cancer also increase.[8]

Of 291 patients registered, 136 patients (47%) were males while 155 patients (53%) were females. Around 80% of patients were from District Rajouri, 19% from District Poonch and 1% from other Districts. Maximum cases registered in the year 2022 (28.5%) and minimum in the year 2021(19.5%). Maximum patients belongs to age group 20-60 years(56%). Data regarding types of cancers shows, most common cancers in males were Lung cancer(7.2%) followed by Non Hodgkin's lymphoma (5.4%) and prostate cancer(4.8%). The most common cancers in females were breast cancer (7.5%) followed by ovarian cancer(4.1) and other gynaecological cancers (2.7%). Overall most common cancers combined both sexes were lung cancer (8.5%), Breast Cancer (8%), Gall bladder/CholagioCa (7.5%), Colorectel cancers(4.8%) and CaEsophagous (4%). Regarding addiction study has shown 17% of patients have history of smoking, 8% Tobacco consumption and 5% alcohol consumption. Patients were diagnosed with stage I (1.5%), Stage II (17%), stage III (39%) and stage IV (42 %). Majority of patients were diagnosed/presented in stage IV followed by stage III. Different types of Treatment modalities received include surgery (25%), Radiation Therapy (20%), Chemotherapy (66%) and multi modality treatment (31%) of patients respectively. Around 16 % of total patients received no treatment.

Rasool MT et al did a retrospective study of patients registered at Regional Cancer Centre (RCC) from Jan. 2009 to Dec. 2011. A total of 8648 patients were registered during this period. Esophageal cancer was the most common cancer followed by cancers of Lung, Stomach, Colorectal, Breast, Non-Hodgkin's Lymphoma, Gastro esophageal junction, Ovary, Skin, Gallbladder, Multiple Myeloma, Acute Lymphoid Leukemia, Urinary Bladder, Prostate and Hodgkin's lymphoma.[9]

Nandi *et al*. reported 4484 patients registered from January 2005 to December 2006 where females outnumbered male by 1.3:1. Most common cancer among males was head-and-neck cancer while cervix and breast cancer were common among females.[10]

Pandey A et al evaluated the numbers of consecutive patients registered with eight most common type of cancer in HBCR in Regional Cancer Centre, Bihar, and to evaluate trends of cancer cases registered with respect to time. Sixty-six thousand and twenty-nine consecutive patients were registered between 2014 and 2016. Carcinoma gallbladder was the most common malignancy (21%), followed by head-and-neck cancer (19%) and breast cancer (15%). Median age at the diagnosis was 55 years for carcinoma gallbladder while 53 years and 46 years for head-and-neck and breast cancer, respectively. Male-to-female ratio was 0.6 for carcinoma gallbladder and 1.8 for head-and-neck cancer. A number of gallbladder and head-and-neck cancer registered increased by 36% (between 2014 and 2015) and 5% (between 2015 and 2016) and 24% (between 2014 and 2015) and 4% (between 2015 and 2016), respectively. Carcinoma breast and cervix showed decreasing trend with fall in registration up to 13% (between 2015 and 2016) and 27% (between 2015 and 2016), respectively.[11]

Singh G et al generated data on the magnitude and pattern of cancer cases reporting in the medical college hospital and to plan activities for prevention of cancer in the field practice area. A five year record-based retrospective analysis of cancer cases who reported either for diagnosis or for treatment (radiotherapy/chemotherapy/surgery) were included in the study. These confirmed cases of cancer were classified according to the International classification of Disease (ICD-10) given by WHO. Out of a total of 1328 cancer cases, females accounted for 809 (60.9%) and males for 519 (39.1%) cases. Male to female ratio was 1:1.55. The maximum numbers of patients were seen in 35-64 yr age group (63.5%). Top five leading sites of cancer in males were lung (9.6%), myeloid leukemia (8.3%), prostate (6.8%), mouth (6.1%) and gall bladder (6.0%);

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and in females were breast (35.7%), cervix (19.1%), esophagus (5.1%), myeloid leukemia (4.7%) and gall bladder (3.9%). region.[12]

Conclusion

Breast cancer, lung cancer, prostate cancer and ovarian cancers are most common individual cancers in PirPanjal regions. Overall gastrointestinal cancers are most common cancers in this region. Majority of cancers diagnosed in late stages (III and IV). Majority of patients received palliative treatment. All stakeholders related to health need to focus on awareness of cancer in society for prevention, early diagnosis and treatment of cancer patients.

References

1. Fitzmaurice C, Dicker D, Pain A, Hamavid H, Moradi-Lakeh M, MacIntyre MF, et al. The Global Burden of Cancer 2013. JAMA oncology. 2015 Jul;1(4):505-27. PubMed PMID: 26181261. Pubmed Central PMCID: PMC4500822. Epub 2015/07/17. eng.
2. Available from: https://www.uicc.org/iarc-release-latest-world-cancer-statistics.
3. D'Souza ND, Murthy NS, Aras RY. Projection of cancer incident cases for India-till 2026. Asian Pac J Cancer Prev 2013;14:4379-86.
4. Jemal A, Siegel R, Ward E, Murray T, Xu J, Thun MJ. Cancer statistics, 2007. CA Cancer J Clin 2007;57(01):43–66
5. Ferlay J, Soerjomataram I, Ervik M, et al. GLOBOCAN 2012v1.0, Cancer Incidence and Mortality Worldwide: IARCCancer Base No. 11. Lyon, France: International Agency forResearch on Cancer, 2013. Available from: http://globocan.iarc.fr
6. Sharma MK, Gour N, Pandey A, Wallia D, Kislay D. Epidemiological trends of cancer morbidity at a government medical college hospital, Chandigarh, India. Asian Pacific Journal of Cancer Prevention. 2012;13(7):3061-4.
7. Wani M, Jan F, Khan N, Pandita K, Khurshid R, Khan S. Cancer trends in Kashmir; common types, site incidence and demographic profiles: National Cancer Registry 2000-2012. Indian journal of cancer. 2014 April 1, 2014;51(2):133-7.
8. White MC, Holman DM, Boehm JE, Peipins LA, Grossman M, Henley SJ: Age and cancer risk: a potentially modifiable relationship. Am J Prev Med. 2014, 46:S7-15. 10.1016/j.amepre.2013.10.029
9. Rasool MT, Lone MM, Wani ML, Afroz F, Zaffar S, Mohib-ul Haq M. Cancer in Kashmir, India: Burden and pattern of disease. J Can Res Ther 2012;8:243-6
10. Nandi M, Mandal A, Asthana AK. Audit of cancer patients from Eastern Uttar Pradesh (UP), India: A university hospital based two year retrospective analysis. Asian Pac J Cancer Prev 2013;14:4993-8.
11. Pandey A, Raj S, Madhawi R, Devi S, Singh RK. Cancer trends in Eastern India: Retrospective hospital-based cancer registry data analysis. South Asian Journal of Cancer. 2019 Oct;8(04):215-7.
12. Singh G, Mahajan S, Suri A. Pattern of cancers in Jammu Region. JK Science. 2016 Jul 1;18(3):186.