



CANCER PATIENTS PROFILE IN GARHWAL REGION UTTARAKHAND

Dr Daulat Singh

Professor & HOD, Dept of Radiotherapy & Oncology VCSG Government institute of Medical sciences & Research, Srinagar Garhwal, Uttarakhand

Dr Seema Devi*

Additional professor, Dept of Radiation oncology, State Cancer Institute IGIMS, Patna, Bihar *Corresponding Author

ABSTRACT

Introduction: Cancer is the 2nd most common cause of all cancer related death worldwide. It is the major threats to public health in developing and developed countries. Incidence of cancer increasing day by day due to better diagnostic facilities, life expectancy and environmental, genetic factors, change in our life style. A retrospective study conducted at Vir Chandra Singh Garhwal Government institute of medical science & research. It will provide an idea about the age, sex, geographical distribution of disease in Garhwal region.

Material and method: All patient were analysed between year 2013 to 2017 who attended our department with confirmed diagnosis

Results: Total 370 patients were included in our study in which 243 were male and 127 were female.

Most common malignancy was Head & neck cancer in study. Ca lung was 2nd most cancer GI and Gall bladder malignancy was 3rd most common malignancy.

Conclusion: Most of the patients were presented in advance stage of disease. Males were most affected may be due to habit of alcohol intake, tobacco and smoking, intake of unfiltered water, lack of knowledge about the severity cancer and outcome of disease.

KEYWORDS :**Introduction**

Cancer still a big threat to our society despite advancement of diagnostic facilities and treatment¹. This is 2nd most common cause of death world wide².

It contributes about 23% deaths in USA and 7% in India. Cancer incidence in India are lower as compare to western countries but incidence of cancer is rising day by day due to changes in life style, increasing rate of migration, increase in life expectancy. Different studies suggested that environmental genetic factors dietary and addicted habits, socio economic status and lifestyle, infection load are strongly related with disease^(3,4). Geographically and socio cultural differences are also responsible for increasing prevalence as well as risk associated with disease⁵.

By 2020 expected world population will be 7.5 billion and approximate about 15 million new cancer patients and 12 million cancer patient deaths⁶ large variation of incidence exists.

In cancer profile among different countries and within the country due to different geographical region, environment factors and genetic factors, socio economic factor, dietary habits and addiction habit⁷.

Material and Methods

This retrospective study in Vir Chandra Singh Garhwal Government institute of medical science & Research from 2013 to 2017. The study included all cancer patients who attended Radiotherapy department with confirmed diagnosis. Information retrieved from patients case records regarding sex, age, residential area and diagnosis study included patient from Tehri, Rudraprayag, Srinagar, pauni, Dehradun and all adjoining areas.

Results

A total of 370 patients included in this study. In which 243(65.6%) were male and 127 (34.3%) patients were females.

Most common group of presentation between males and females in this study was 51-60 years about 52.9% followed by 41-50 years 35.6%.

Head & neck cancer was the commonest which was 31% followed by lung carcinoma 23%, GI malignancy on 3rd most common, 12%

gynecological malignancy. Geographical distribution of disease was Rudraprayag and Srinagar were the main contributor of disease (4.59% (170/370)).

About 86% patients presented with advanced stage (locally advanced & metastatic at presentation).

Table 1

Year	Total no of case	Male	Female
2013	43	26	17
2014	65	47	18
2015	77	51	26
2016	89	58	31
2017	96	61	35
Total	370	243(65.6%)	127(34.32%)

Table 2**Area Distribution**

Year	No of pat	Rudraprayag	Tehri	Pauri	Srinagar	Dehradun	Other
2013	43	13	8	10	10	1	1
2014	65	18	12	15	13	2	5
2015	77	17	18	14	18	1	9
2016	89	20	15	18	20	3	13
2017	96	20	23	18	21	5	9
Total	370	88 (23.7%)	76 (20%)	75 (20%)	82 (22%)	12 (3%)	37 (10%)

Table 3**NO of OPD & IPD patients in department of radiotherapy**

Year	OPD	IPD	Total no of pat in opd of medical college
2013	43	65	15150
2014	65	88	16215
2015	77	95	17266
2016	89	53	16790
2017	96	86	16507

Disease wise distribution of cancer patient

	2013	2014	2015	2016	2017	Total
Head & Neck	14	21	25	26	30	116 (31%)
Lung	12	14	20	23	18	87 (23%)
GI Malignancy	11	13	17	21	20	82 (22%)

Ca cervix + ovary	3	8	8	11	15	45 (12%)
Ca Breast	1	3	5	4	8	21(5.6%)
Lymphoma & Leukemia	2	6	2	4	5	19(5%)
Total	43	65	77	89	96	370

Age Group (years)									
		30-40		41-50		51-60		61-70	
	Total pat	M	F	M	F	M	F	M	F
2013	43	2	1	9	6	15	9	0	1
2014	65	3	0	19	6	23	10	2	2
2015	77	0	0	20	8	28	17	3	1
2016	89	1	2	23	9	29	17	5	3
2017	96	4	1	20	12	28	20	9	2
Total	370	10	4	91	41	123	73	19	9
Total		14(37%)		132(35.6%)		196(52.09%)		28(7.5%)	

Year	Opd	IPD	Total no of pat in opd of medical college
2013	43	65	15150
2014	65	88	16215
2015	77	95	17266
2016	89	53	16790
2017	96	86	16507
Total	370	387	81928

Discussion

The Uttarakhand state in India mainly divided into two region Kumaon and Garhwal. Garhwal region is surrounded by Dehradun, uttarakashi and Rudraprayag. It is situated near Alakhnanda river. Total population of Garhwal was 6,87,271 in 2011 census. In which 3,26829 (47.55%) were males and 360442(54.44%) were females. Male, female ration was 1:1.1. According to 2011 census in which 83.60% population was rural and 16.40% population was urban. Main occupation in this area is agriculture. Vir Chandra Singh Garhwal Government institute of Medical sciences and research established by government in 2008. It is located near srinagar town in pauri garhwal district of uttrakhand India. Climate of this region is sub temperate and temperate. Temperature ranges between maximum 45^c in may June to minimum of 1.3^c in January. Soil of this region mainly contains silica and calcium carbonate⁸.

The people of Garhwal region have habits of smoking, gutkha chewing and alcohol. gutkha contains some chemicals for adding flavour. The population is used to drink unfiltered water and spicy food. These factor may be responsible for causing gastrointestinal cancer.

People usually presented in advanced stage of disease due to negligence, ignorance and lack of cancer detection facilities at nearby places. People use to take have remedies as traditional medicine inspite of availability of free health care facilities.

Head & neck cancer is the most common cancer in our study. About 31% of total patient were contributed to head & neck cancer. Data was comparable with the study conducted by pandey⁹ et al 2014 in kumaon region which shows 45.1% of all cancer patients in which about 80.6% patient presented in stage III & IV disease. In India most people presented in advanced stage as compare to developed countries (60% vs 40%)^{10,11}.

2nd most common cancer was lung cancer. It contributed about 23% of total patients lung cancer is most common cause of death in the world. World wide it is responsible for 28 % of all cancer related death^{12,13} shows its contribution about 17.35% and male : female ratio was 7:7.1 in kumaon region. Another retrospective study conducted by¹⁴ shown 89.16% cases male at garhwal region of uttarakhand . in an study mlae: female ration was 4:1.

Gastric cancer and gall bladder cancer ranked 3rd by gaur¹⁵ et al shown the 5th most common cancer in males.

Gall bladder cancer in common malignancy of biliarytract usually presented in advanced stage¹⁶. we found a higher incidence of gall bladder cancer as compare to other studies conducted in this region¹⁷.

Breast cancer incidence was much lower only 5-6% in our study. It was 3rd most common cancer amongst female. First most common cancer reported in our study was carcinoma cervix followed by ca ovary. Contributed about 12% of total patients. Prevention strategies are required to control this disease in developing countries. Community participation for prevention, facilities for early detection and information about the diagnosis and treatment required to control the disease and reduce the cancer deaths.

Conclusion:

This study conducted in a centre of garhwal region only given an idea about distribution according to age, sex and disease pattern in garhwal district of uttarakhand. About 70% of Indian population live in rural area. They usually face problem of transportation low literacy rate. Ignorance about severity and outcome of disease.

Presentation in advance stage of disease leads to poor outcome of disease, discouragement for the relative, financial loss for family. Now a day government of India and all state govt are taking efforts for awareness, providing facilities at district level and setting up new cancer treatment centre.

REFERENCES:

1. Kotnis A, sarin R, Mulherkar R (2005) Genotype, Phenotype and cancer : Role of low penetrance genes and environment in tumor susceptibility. J Biosci 30, 93-102
2. Jemal A Siegel R Ward E, Murray T, Xu J, Thum MJ (2007) cancer statistics, 2007. CA Cancer J Clin 57,43-66
3. Ali I, wani WA and saleem K. Cancer scenario in India with Future perspectives, Cancer therapy 2011;8:56-70
4. Ferlay J, soejomataram I Ervik M Dikshit R, Mathers C, Rebelo M, Parkin DM, Forman D, Bray, F. Cancer incidence and mortality worldwide IARC Cancer Base GLO BOCAN2012
5. Dinshaw KA. Cancer control programme in India challenges for the new millennium Health administrator; 17(1);10-13
6. Brayand F, Moller B (2006) predicting the future burden of cancer. Nat Rev Cancer 6, 63-74
7. Sharma RG, Kumar R jain S, Jhahhria S, Gupta N, Gupta SK et al . distribution of malignant neoplasm reported at different pathology centre and hospital in Jaipur, Rajsthan Indian J cancer 2009, 46:323-30
8. Cencus India 2011 available at Hyperlink [http:// www. census2011.co.in/ district.php](http://www.census2011.co.in/district.php)District census 2011
9. PAndey KC stage wise presentation of Head & neck cancer in kumaon hills, vol 15 2014;4957-4961
10. Kulkarni MR (2013) Head and neck cancer burden in India. International Journal of head and neck surgery 4, 29-35
11. Mishra A. Mehrotra R (2014) Head & neck Cancer: global burden and regional trends in India. Asian Pac J Cancer Prev. 15, 537-50
12. Beckett Ws Epidemiology and etiology og Lung cancers clin chest med 1993;14:1-15
13. Bag A , Rawat s Pant N K , Jyala N S, Singh A Pandey K C Cancer pattern in Nainital and adjoining districts of Uttarakhand A One year survey J Nat sc Biol Med 2012;186-88
14. Rawat J, Sindhwani G Gaur D, Dua R, Saini s. Clinic-pathological profile of lung cancer in uttarakhand. Lung India 2009; 26:74-6
15. Gaur DS, Kishore S larsh M Kusum A Bansal R Patteren of cancers among patterns attending Himalyan institute of Medical sciences , Dehradun Indian J pathology Microbiol 2006;49:193-8
16. Kaira N suri S, Gupta R et al MDCT in the staging of gallbladder carcinoma. Am J Roentgenol 2006;186:758-762
17. Chaudhry S, Khan AA, Mirza KM, et al (2008) Estimating the burden of head and neck cancers prev 9. 529-32