

## Pattern of ENT Cancers in a Rural Based Hospital of J&K

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### Abstract

A total of 40 cases of total body cancer (TBC) reported at District Hospital, Doda between 1st January, 2002 to 31st December, 2002. ENT cancers comprised 23 (57.5%) cases. Carcinoma of the oesophagus was the commonest cancer amongst TBC comprising of 7 (17.5%) cases followed by carcinoma breast and thyroid comprising of 5 (12.5%) cases each, carcinoma of skin and lymphoma comprising of 4 (10%) cases each. Commonest age group involved was 40-60 years. ENT cancers constituted the major burden of TBC in District Doda.

### Key Words

Total body cancer, ENT cancer, Doda

### Introduction

ENT cancers in a male and breast & cervix cancers in a female are the main cancers constituting nearly 60% of all the cancers of the body (1). In India, cancer is the sixth common cause of death in males and seventh in females (2). ENT cancers are important due to divergence in their behaviour and prognosis.

A good amount of data is available on the pattern of cancers in large cities, but one finds very little in rural areas where 75% of the population lives. This paper deals with our experience of ENT cancer cases seen in the rural based District Hospital of J&K state at Doda city. This is the largest district areawise in Jammu province having an area of 11691 sq. km. with 5400 sq. km. area covered only by forests. The total population of the district is 1008406 with majority living in rural areas. The sex ratio in district is 905 females per 1000 males and the literacy rate is 46.92%

(as per 2001 census). This district is having one District Hospital, three Sub-district Hospitals and three Emergency Hospitals in addition to a number of Primary Health Centres (PHC) and dispensaries.

The local inhabitants are mostly non-vegetarians with muslims being the majority community in the district. The staple diet of the people in this area is maize. Smoking is much common among males in this district.

### Material and Methods

This study is based on the total cancer cases of the body confirmed histopathologically at District Hospital, Doda for 1 years w.e.f. 1st Jan., 2002 to 31st Dec., 2002. Records of the Pathology section of the hospital were reviewed and analysed for knowing the pattern of total body cancers (TBCs) and records of ENT section of the hospital, were seen for finding the details

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of ENT cancers. Cases confirmed as cancers at other institutions and residing in this area having follow-up at this hospital, were also included in the study. Cases seen by the general surgeon and falling within the ENT domain were taken in this study in ENT category.

**Observations**

**Total Body Cancer (TBC) :** During a period of 1 year (w.e.f. 1st Jan., 2002 to 31st Dec., 2002), a total of 40 cases of TBC were seen. It comprised of 0.32% of total patients consulting the District Hospital (both outdoor and indoor) and 0.55% of patients consulting the ENT section of the hospital.

**Pattern of TBC :** Among TBC, carcinoma oesophagus was the most common cancer comprising of 7 (17.5%) cases followed by carcinoma breast and thyroid comprising of 5 (12.5%) cases each, carcinoma skin and lymphoma comprising of 4 (10%) cases each (Table I).

**Age and sex-wise distribution of TBC :** Maximum cases of TBC (70%) were seen in the age group of 40 - 69 years. Among males, the maximum cases (38.8%) were seen in the age group of 60-69 years whereas in females the maximum cases (22.7%) were seen in the age group of 40-49 years. Male to female ratio was 1:1.2. There was female predominance in the age group of 20-49 years and male predominance in the age group of 50 years and above. In males, carcinoma oesophagus was most common comprising of 6 (33.3%) cases whereas in females, carcinoma breast was most common comprising of 5 (22.7%) cases (Table I & II).

**ENT cancers :** There was a total of 23 cases comprising of 57.5% of TBC. Maximum cases of ENT cancer (86.8%) were seen in the age group of 40-69 years (Table III). Among ENT cancers, carcinoma oesophagus was most common comprising of 7 (30.4%) cases followed by carcinoma thyroid comprising of 5 (21.6%) cases.

Among males, oesophageal cancer was commonest both in TBC and ENT. There was a predominance of ENT cancers in the ratio of 1. Thyroid cancer was the second commonest in comprising of 21.6% cases followed by rodent comprising of 17.4% cases (Table IV).

**Histopathologically of ENT cancers :** Squamous cell carcinoma (SCC) was found to be the common type of malignancy seen in 39.1% of cases. (Table IV)

**Table I : Pattern and sex-wise distribution of Total Body Cancer**

Anatomical Site	Male (No.)	Female (No.)	Total	
			(No.)	(%)
Cervix	—	3	3	7.5%
Breast	—	5	5	12.5%
Oesophagus	6	1	7	17.5%
Laryngopharynx	—	1	1	2.5%
Thyroid	2	3	5	12.5%
Submandibular	1	—	1	2.5%
Parotid	—	1	1	2.5%
Ear	—	1	1	2.5%
Lymph node	1	1	2	5.0%
Skin	4	—	4	10.0%
Lymphoma	1	3	4	10.0%
Leukemia	—	1	1	2.5%
Bone	—	1	1	2.5%
Rectum	1	—	1	2.5%
Stomach	1	—	1	2.5%
Eye	1	—	1	2.5%
Miscellaneous	—	1	1	2.5%
<b>Total</b>	<b>18 (45%)</b>	<b>22 (55%)</b>	<b>40</b>	<b>100.0%</b>

**Table II : Age and sex-wise distribution of Total Body Cancer**

Age Group (in years)	Male (No.)	Female (No.)	Total	
			(No.)	(%)
01 - 09	—	1	1	2.5%
10 - 19	—	1	1	2.5%
20 - 29	—	2	2	5.0%
30 - 39	1	4	5	12.5%
40 - 49	4	5	9	22.5%
50 - 59	4	4	8	20.0%
60 - 69	7	4	11	27.5%
70 & above	2	1	3	7.5%
<b>Total</b>	<b>18</b>	<b>22</b>	<b>40</b>	<b>100.0%</b>

**Ratio (male to female) = 1:1.2**



## Discussion

The prevalence of ENT cancers among total body cancers (TBCs) in India varies from 9.8% to 42.9% (1, 3-7). We have observed a prevalence of 57.5% in our present study which indicates a high prevalence of ENT cancers in this region. This high prevalence of ENT cancers in this region may be attributed to the increasing use of tobacco and tobacco preparations. ENT cancers were observed to be rare below 30 years of age ( $n = 1$ ). It occurred most commonly in the age group of 40 - 69 years of age both in males and females. Similar observation is reported in literature (1, 5). We have observed a male predominance of ENT cancers in the ratio of 1.5:1. Various workers have reported male predominance in the ratio ranging from 1.5:1 to 2.2:1 (1, 4, 5, 6).

In our study, squamous cell carcinoma was observed most commonly. It is the commonest type of malignancy in ENT. Similar observations are reported in literature (1, 6, 8).

Oesophageal cancer was the commonest cancer accounting for 17.5% of TBC and 30.4% of ENT cancers with a male-female ratio of 6:1. It is reported to comprise 3.8% to 8.1% with a male-female ratio ranging from 1.3:1 and 5.1:1 (1, 4, 5, 7, 9). Thyroid cancer was the second commonest comprising of 12.5% TBC and 21.6% of ENT cancers with a male to female ratio of 1:1.5. Thyroid is most common site (21% of pediatric cancers) in ENT cancers in children (10). Malignant tumours of thyroid glands represent less than 0.5% of all cancers in England & Wales (11). In southern Sweden, 2 cases in 100,000 population per annum have been observed (12) and in USA the equivalent figure is slightly less than four (13). In literature, the female predominance with male to female ratio of 1:1.5 has been observed (14). Rodent ulcer of the skin was the third commonest comprising of 10% of TBC and 17.39% of ENT cancers with male to female ratio of 4:0. In our study, 4th and 5th

decade was the most common age group involved with exclusive involvement. Similar observations have been reported in literature (15, 16).

Metastatic lymph nodes were observed in 5% TBC and 0.6% of ENT cancers in our study. In literature, a mass in neck has been reported as secondary metastatic lesion rather than primary in 10-20% of cases (17). Carcinoma ear, carcinoma laryngopharynx and carcinoma of salivary glands were observed in less number of cases (4.4%) in our study. Similar observations have been observed in literature (1, 3). Carcinoma larynx only accounts for 1% of the TBC in UK (14).

Other cancers of the ENT domain were found to be least common among ENT cancers. Nasopharyngeal cancer is uncommon in India except in Manipur where it comprised of 8.8% of TBC (1, 3, 5). In southern China, nasopharyngeal carcinoma is endemic in adults though not in children. In contrast, nasopharyngeal carcinoma accounts for 10-20% of childhood malignancies in parts of northern Africa (18). Cancer of nose & PNS have been reported to comprise of 2.4% of TBC (3) and 11.5% of ENT cancers (5) with a male-female ratio ranging between 1.5:1 to 2.2:1 (3, 5). Thakur *et al.* (1) also reported similar observations with nose & PNS cancers comprising of 2.4% of TBC and 5.7% of ENT cancers with male-female ratio of 1:1.17.

ENT cancers thus constituted a major burden of TBC in this region with a significant male predominance probably indicating the higher risk factors like tobacco chewing, smoking and drinking alcohol among male population. In addition, poor nutrition and non-approachability to medical facilities due to hilly and far-flung areas makes the population of this region more vulnerable to ENT cancers. The figure of ENT cancers reported in this paper may be a tip of ice-berg with more number of cases remaining undetected and unattended due to poverty in this region.

and with militancy effecting the day-to-day life of people in this region. Thus a detailed survey of this region is needed to properly detect and treat various cancer cases in this biggest district having much geographical variations.

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