

THE CHARACTERISTICS OF HEAD AND NECK CANCER CASES IN CLINIC THT RSUP SANGLAH DENPASAR FROM 2015-2017

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Abstract: Head and neck cancer is a general term used for a range of cancers that starts in the head and neck of the body. This region includes the mouth, tongue, palate, jaw, salivary glands, tonsils, throat (pharynx), voice box (larynx), nose and sinuses. Head and neck cancers are in the world with an estimated 686,328 cases in 2012, comprising 300,373 cancers in the lip and oral cavity, 156,877 in the larynx, 142,387 in the other pharynx and 86,691 cancers in the nasopharynx. The study was cross sectional conducted with retrospective descriptive design. Samples of 12,825 patients diagnosed with head and neck cancer at the Clinic THT RSUP Sanglah Denpasar Medical Records Installation Bali for the period 2015-2017 were selected based on inclusion and exclusion criteria. Data were analysed using tabulation to obtain distribution based on age, gender/sex, and type of cancer. The cases of Head and Neck cancer cases in Clinic THT RSUP Sanglah in 2015-2017 was 12,825 people, the patient characteristics were mostly men (70.42%) with an age range dominated from 41 - 60 years old (60.00%). Majority of the patients in the THT-KL Polyclinic RSUP Sanglah during the study period were found to have Nasopharyngeal cancer, followed by Larynx cancer and Sinonasal cancer. It was conducted that the cases of Head and Neck cancer in Clinic THT RSUP Sanglah Denpasar from 2015-2017 mostly men (41-60) and the majority cases of cancer were diagnosed from Nasopharyngeal cancer.

Keywords: Head and Neck cancer, Nasopharyngeal cancer, Larynx cancer, Sinonasal cancer.

1. INTRODUCTION

Head and neck cancer is a general term used for a range of cancers that starts in the head and neck of the body. This region includes the mouth, tongue, palate, jaw, salivary glands, tonsils, throat (pharynx), voice box (larynx), nose and sinuses.¹

Cancer is when cells in the body change and grow out of control. Cancer is made up of abnormal cells that grow even though your body doesn't need them. In most cancers, the abnormal cells grow to form a lump or mass called a tumour. If cancer cells are in the body long enough, they can grow into (invade) nearby areas yet spread to the other part of bodies. Cancers of head and neck are identified that begins in the area oral cavity, salivary glands (major and minor), and paranasal sinuses and nasal cavity.²

Head and neck squamous cell carcinoma is a disease with mortality and mobility. More than 50,000 new cases of head and neck squamous cell carcinoma are diagnosed in the United States every year, with a mortality rate of 12,000 annually.³

Head and neck cancers are in the world with an estimated 686,328 cases in 2012, comprising 300,373 cancers in the lip and oral cavity, 156,877 in the larynx, 142,387 in the other pharynx and 86,691 cancers in the nasopharynx.⁴

2. MATERIALS AND METHODS

This study uses a retrospective descriptive design with approach of cross sectional which aims to determine the occurrence of head and neck cancer according to age, gender, and type of cancer based on patients from THT outpatient Clinic RSUP Sanglah in Denpasar from January 2015 until December 2017. The method of choosing is the sample is consecutive sampling, where researchers choose the sample based on subjective considerations and practical, in this case the Patient Registered Logbook of patients that fit into the inclusion criteria based on age, gender, type of cancer with corresponding available data.

The inclusion criteria samples in the study were chosen if they were the patients with Head and neck cancer, age, gender, and type of cancer of the patients from THT Outpatients Clinic RSUP Sanglah in Denpasar from January 2015 until December 2017. The exclusion criteria samples in this study is if the patients lost to follow up and also the patients with incomplete data.

Data for this study will be collected as part of a descriptive study using data that has already been provided and recorded. The data were collected from Patients Registered Logbook of all patients with head and neck cancer, whom are registered as patients between January 2015 until December 2017 at THT Outpatient Clinic RSUP Sanglah in Denpasar. Upon completion, data will be analyzed using tabulation. This research has received ethical eligibility permission from the Research Ethics Commission (KEP) of the Faculty of Medicine, Udayana University.

3. RESULTS

From the total patient with Head and Neck Cancer cases that fulfill or are within the inclusion and exclusion criteria of the study from January 2015 - December 2017 a total of 12,825 patients were included in this study from RSUP Sanglah records.

Characteristics of Head and Neck cancer cases based on type of cancer

In this study, it involves three types of Head and Neck cancer which Nasopharynx cancer, Sinonasal cancer, and Larynx cancer. From the 12,825 recorded patients in RSUP Sanglah from 2015 - 2017, there were 10,711 cases recorded on Nasopharynx cancer representing 83.52%, 1,073 cases were recorded on Larynx cancer representing 8.37%, and 1,041 cases were recorded on Sinonasal cancer representing 8.12%.

Table 1: Characteristics of Head and Neck cancer cases in THT-KL Polyclinic RSUP Sanglah from 2015 - 2017 based on type of cancer

Characteristics	Amount	Percentage
Nasopharynx cancer	10,711	83.52%
Larynx cancer	1,073	8.37%
Sinonasal cancer	1,041	8.12%

Characteristics of Head and Neck cancer cases based on gender/sex

Of the 12,825 recorded patients with Head and Neck cancer from 2015–2017 in RSUP Sanglah, there were more male cases recorded compared with female cases. A total of 9,032 cases recorded were of male dominance while only 3,793 were of female gender. These corresponded to 70.42% male cases and 29.58% female cases.

Table 2: Characteristics of Head and Neck cancer cases in THT-KL Polyclinic RSUP Sanglah from 2015 - 2017 based on gender/sex

Characteristics	Amount	Percentage
Male	9,032	70.42%
Female	3,793	29.58%

Characteristics of Head and Neck cancer cases based on age

In this study, it involves cases of Head and Neck cancer ranging from all the age categories. From the 12,825 recorded patients in RSUP Sanglah from 2015 – 2017, there were 153 cases recorded with the age 20 years old and below,

representing 1.19%. Total of 2,391 cases was recorded in age range 21 - 40 years old, representing 18.64%. For the age ranges of 41 – 60 years old, there were 7,696 cases equating to 60.00% respectively. There are 2,530 cases aged 61 - 80 years old representing 19.73% and 55 cases aged 81 years old and above, representing 0.43%.

Table 3: Characteristics of Head and Neck cancer cases in THT-KL Polyclinic RSUP Sanglah from 2015 - 2017 based on age

Characteristics	Frequency	Percent
<20	153	1.19
21-40	2,391	18.64
41-60	7,696	60.00
61-80	2,530	19.73
>81	55	0.43

Characteristics of Head and Neck cancer cases based on type of cancer, gender/sex, and age

Of the 12,825 recorded patients with Head and Neck cancer from 2015 – 2017 in RSUP Sanglah, there are 7,491 cases recorded with Nasopahrynx cancer in males with the age range below 20 years old : 95 cases, from 21 until 40 years old : 1,273 cases, from 41 until 60 years old : 4,573 cases, from 61 until 80 years old : 1,536 cases, and above 81 years old : 14 cases. For female patients, there are 3,220 cases recorded with the age range below 20 years old : 54 cases, from 21 until 40 years old : 724 cases, from 41 until 60 years old : 2,122 cases, from 61 until 80 years old : 316 cases, and above 81 years old : 4 cases.

There are 584 cases recorded with Sinonasal cancer in males with the age range below 20 years old : 3 cases, from 21 until 40 years old : 96 cases, from 41 until 60 years old : 287 cases, from 61 until 80 years old : 197 cases, and above 81 years old : 1 case. For female patients, there are 457 cases recorded with the age range below 20 years old : 1 case, from 21 until 40 years old : 214 cases, from 41 until 60 years old : 186 cases, and from 61 until 80 years old : 56 cases.

There are 957 cases recorded with Larynx cancer in males with the age range from 21 until 40 years old : 58 cases, from 41 until 60 years old : 455 cases, from 61 until 80 years old : 408 cases, and above 81 years old : 36 cases. For female patients, there are 116 cases recorded with the age range from 21 until 40 years old : 26 cases, from 41 until 60 years old : 73 cases, and from 61 until 80 years old : 17 cases.

Table 4: Characteristics of Head and Neck cancer cases in THT-KL Polyclinic RSUP Sanglah from 2015 - 2017 based on type of cancer, gender/sex, and age

Characteristics	Amount	Percentage
Larynx cancer (Males)	957	7.46%
<20	153	1.19%
21-40	2,391	18.64%
41-60	7,696	60.00%
61-80	2,530	19.73%
>81	55	0.43%
Larynx cancer (Females)	116	0.90%
<20	0	0%
21-40	26	0.20%
41-60	73	0.57%
61-80	17	0.13%
>81	0	0%
Sinonasal cancer (Males)	584	4.55%
<20	3	0.02%
21-40	96	0.75%
41-60	287	2.24%
61-80	197	1.54%
>81	1	0.01%

Sinonasal cancer (Females)	457	3.56%
<20	1	0.01%
21-40	214	1.67%
41-60	186	1.45%
61-80	56	0.44%
>81	0	0%
Nasopharynx cancer (Males)	7,491	58.41%
<20	95	0.7%
21-40	1,273	9.93%
41-60	4,573	35.66%
61-80	1,536	11.98%
>81	14	0.11%
Nasopharynx cancer (Females)	3,220	24.95%
<20	54	0.42%
21-40	724	5.65%
41-60	2,122	16.55%
61-80	316	2.46%
>81	4	0.03%

4. DISCUSSION

Head and neck cancer is a heterogenous group of upper aerodigestive tract malignancies which is the seventh most common cancer worldwide. A great majority of head and neck cancers are squamous cell carcinomas. Rettig et al said that initial cause of this head and neck cancer are tobacco and alcohol use, and human papillomavirus (HPV) which is a sexually transmitted disease.⁵

Among the Outpatient THT-KL Polyclinic RSUP Sanglah from 2015-2017 a pattern for age, gender/sex, and type of cancer is observable. There were 12,825 cases recorded for these period for patients having head and neck cancer. There are 10,711 (83.52%) cases recorded with Nasopharynx cancer with 7,491 (58.41%) males patients and 3,220 (24.95%) female patients. The total number of patients registered with age range below 20 years old is 149 cases. Another 1,997 patients in the age range of 21 - 40 years old. There were 6,695 patients from age range of 41 - 60 years. Another 1,852 patients were from age range of 61 - 80 years old and 18 patients were registered with age range 81 and above. Most of the patients with Nasopharynx cancer prevailed from those of 41 - 60 years old. Based on the study by Salehiniya et al, men are more likely to develop Nasopharyngeal cancer than in women between the age of 50 - 60 years old. The standard occurrence of Nasopharyngeal cancer worldwide was 1.2 per 100,000, which is in men is 1.7 per 100,000 and in women is 0.7 per 100,000.^{6,7}

Among the recorded patients, there are 1,073 (8.37%) cases recorded with Sinonasal cancer with 584 (4.55%) males patients and 457 (3.56%) female patients. The total number of patients registered with age range below 20 years old is 4 cases and 310 patients in the age range of 21 - 40 years old. There were 473 patients from age range of 41 - 60 years. Another 253 patients were from age range of 61 - 80 years old and only 1 patient was registered with age range 81 and above.

The number of Outpatient in THT-KL Polyclinic RSUP Sanglah with Larynx cancer shows a record of 1,041 (8.12%) with reading of males with 957 (7.46%) cases and in female 116 (0.90%) cases. There were no cases recorded with the age range of 20 years old and below. Yet, there are 84 cases registered with the age 21 - 40 years old and 528 cases for the age range of 41 - 60 years old. Another 425 cases were from age range 61 - 80 years old and 36 patients from age range 81 years old and above. In this study, it was observed that the number of males patients were higher than the number of female patients registered for all three type of cancers. The first largest number of patient registered was with Nasopharyngeal cancer, followed by Larynx cancer and Sinonasal cancer. Moreover, the highest count of patients with head and neck cancer were with the age range from 41 - 60 years old for both male and female.

5. CONCLUSION

Based on the total patients with Head and Neck cancer in the THT-KL Polyclinic RSUP Sanglah a total of 12,825 patients were identified and used in this study based on the inclusion criteria from the year January 2015 to December 2017.

Among the patients, it was found that the most number of patients with Head and Neck cancer in the THT-KL Polyclinic RSUP Sanglah hailed from the age groups of 41–60 years old with 7,696 patients respectively (60.00%).

Patients with Head and Neck cancer in the THT-KL Polyclinic RSUP Sanglah was found to be more of the male gender than the female gender. There were 9,032 male patients (70.42%) and female patients 3,793 (29.58%) recorded from January 2015 to December 2017.

Majority of the patients in the THT-KL Polyclinic RSUP Sanglah during the study period were found to have Nasopharyngeal cancer, followed by Larynx cancer and Sinonasal cancer.

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