

DISTRIBUTION OF PATIENTS WITH NASOPHARYNGEAL CANCER (NPC) IN SANGLAH HOSPITAL AT 2011-2013

Tri Kusuma AAB* Sari Wulan DS** Ardika IG***

Department of Ear, Nose, Throat-Head and Neck (ENT-HNS) Faculty of Medicine Udayana
University/ Sanglah Hospital-Denpasar

ABSTRACT

Objective: To determine the distribution of patients with nasopharyngeal cancer (NPC) in departement of ENT Sanglah hospital, period during January 2011-December 2013.

Methods: This descriptive study by collecting data from medical record of NPC patients who come to the outpatients clinic ENT Sanglah hospital and data from the department of Pathologic Anatomy at Sanglah hospital.

Results: The distribution of patients with NPC highest in 2012 as many as 82 people of all patients with NPC. Distribution of NPC patients by sex was found in 2011 the highest in men 51 people (68.00%), in 2012 men 50 people (60.98%) and in 2013 was also highest in men 43 people (67.18%). The distribution of patients with NPC is most often found in the age group 41-50 years is the year 2011 as many as 29 people (38.66%). The distribution of patients with NPC based on the stage most often found in stage III where in 2011 as many as 22 people (29.33%), in 2012 as many as 25 people (30.49%) and in 2013 as many as 19 people (29.69%). Distribution stage NPC patients based on those found in sex stage III more in males than females in each year. NPC patients based on the results obtained Anatomical Pathology at most on the WHO classification-3 which in 2011 amounted to 72 (96%), in 2012 by 76 (92.68%) and in 2013 a number of 62 (96.88%)

Conclusion: The distribution of patients with NPC highest in 2012 as many as 82 people from a total of NPC patients. Distribution of NPC patients by sex was found in 2011 the highest in men 51 people (68.00%). The distribution of patients with NPC is most often found in the age group 41-50 years that in 2011 as many as 29 people (38.66%). The distribution of patients with NPC based on the stage most often found in stage III where in 2011 as many as 22 people (29.33%), in 2012 as many as 25 people (30.49%) and in 2013 as many as 19 people (29.69%). Distribution stage NPC patients by sex was found in stage III more in males than females in each year. NPC patients based on the results obtained Anatomical Pathology at most on the WHO classification-3.

Keywords: NPC, Stadium, Anatomical Pathology.

INTRODUCTION

Nasopharyngeal carcinoma (NPC) is a malignancy of the nasopharyngeal epithelium derived from the nasopharyngeal mucosa or glands found in the nasopharynx and first reported by Regaud and Schmincke in 1921.¹ Nasopharyngeal carcinoma are in the top five position among other malignancies along with cervical cancer, breast cancer, tumors malignant lymph and skin cancer. The incidence of nasopharyngeal carcinoma was highest in Asia and is rarely found in America and Europe, whereas the incidence in several large hospitals in Indonesia such as Jakarta, Semarang, Yogyakarta and Surabaya showed that the incidence of nasopharyngeal carcinoma is far above other malignant tumors in the field of ENT-HNS.²

In Indonesia, the incidence of nasopharyngeal carcinoma almost evenly in every region, in RSCM Jakarta found more than 100 cases a year, RS Hasan Sadikin 60 cases. Based on the data in outpatient clinic ENT Sanglah from January 2011 to 2013, recorded 221 new nasopharyngeal carcinoma patients with an age range of 11 years to 80 years and the largest age group is 41-50 years.²

According to Chou et al nasopharyngeal carcinoma incidence is highest in South China, tribal Inuits in Alaska and the native population of Greenland. In Cantonese people who live in Guandong province, South China the number of events is 10-20 men per 100,000 population and 5-10 women per 100,000 population. Hepang and Yu, say that because of the high incidence of nasopharyngeal carcinoma in the province then nasopharyngeal carcinoma tumor also called Canton. These findings prove that the geographical location, ethnicity, genetics and environment play a role as a cause of nasopharyngeal carcinoma.³

In connection with the statement and the reasons given above so as to encourage us to do research to determine the distribution of nasopharyngeal carcinoma patients in hospital Sanglah. Based on the background research that has been described above can be formulated research question is how the distribution of nasopharyngeal carcinoma patients in the ENT-HNS Sanglah hospital 2011-2013.

METHODS

Research Methods

This is a descriptive study by collecting data from medical record of NPC patients who come to the outpatients clinic ENT Sanglah hospital and data from the department of Pathologic Anatomy Sanglah hospital. Sampling was carried out at the outpatient clinic ENT Sanglah hospital from January 2011 to December 2013.

Research Procedure

The study population was all the people who are already diagnosed with NPC by histopathological examination results that come to the outpatients clinic ENT Sanglah hospital. Samples were part of the study population who met the inclusion criteria. Inclusion criteria is patients newly diagnosed with NPC based on the results of his histopathological examination in the period January 2011 to December 2013, NPC patients who had done staging. Exclusion criteria is patients with NPC before January 2011. Sampling with a sequential manner that every patient who met the inclusion criteria who come to the clinic ENT-HNS Sanglah hospital.

RESULTS

This research was conducted in the outpatients clinic ENT Sanglah hospital. This study was conducted from January 2011 sampai to December 2013 there were 221 people diagnosed with NPC patients in accordance with the criteria of the study sample. In this research obtained the highest population of patients with NPC in 2012 as many as 82 cases (table 1). NPC patients based on sex in 2011 with a male 51 (68.00%), in 2012 male patients of 50 (60.98%) and in 2013 the number of male patients 43 (67.18%) (table 2). NPC patients most often found by age group 41-50 years that in 2011 as many as 29 cases (38.66%), in 2012 a total of 27 cases (32.92%) and in 2013 as many as 20 cases (31.25%) (table 3). NPC patients based on the stage most often found in stage III, where in 2011 the number of patients with NPC as 22 cases (29.33%), in 2012 as 25 cases (30.49%) and in 2013 as 19 cases (29.69 %) (table 4). NPC patients based on sex was found in stage III more in males than females in each year that in 2011 a total of 14 cases (27.45%), in 2012 as many as 16 cases (32.00%) and in 2013 a total of 12 cases (27.91%) (table 5). NPC patients based on the results of histopathology at most on the WHO classification-3, in the year 2011 as many as 72 (96%), in 2012 as many as 76 cases (92.68) and in 2013 were 62 (96.88%) (table 6).

Table 1. The population of patients with NPC every year

Year	N
2011	75
2012	82
2013	64

Table 2. Distributions of NPC patients based on sex

NO	YEAR	L	%	P	%
1	2011	51	68.00	24	32.00

2	2012	50	60.98	32	39.02
3	2013	43	67.18	21	32.81

Table 3. Distributions of NPC patients based on age group every year

NO	AGE	2011		2012		2013	
		N	%	N	%	N	%
1	11-20	1	1.33	3	3.66	1	1.56
2	21-30	1	1.33	10	12.19	3	4.69
3	31-40	9	12.00	14	17.07	8	12.50
4	41-50	29	38.66	27	32.92	20	31.25
5	51-60	26	34.66	23	28.04	18	28.12
6	61-70	8	10.66	4	4.87	9	14.06
7	71-80	1	1.33	1	1.22	5	7.81
TOTAL		75	100	82	100	64	100

Table 4. Distributions of NPC patients based on the stage every year

NO	STAGE	2011		2012		2013	
		N	%	N	%	N	%
1	I	2	2.67	1	1.22	2	3.12
2	IIA	11	14.67	9	10.98	5	7.81
3	IIB	14	18.67	14	17.07	15	23.43
4	III	22	29.33	25	30.49	19	29.69
5	IVA	13	17.33	21	25.60	12	18.75
6	IVB	9	12.00	10	12.19	8	12.50
7	IVC	4	5.33	2	2.44	3	4.69
TOTAL		75	100	82	100	64	100

Table 5. Distributions of stage NPC based on sex every year

NO	STAGE	2011		2012		2013	
		L	P	L	P	L	P
1	I	2	0	0	1	1	1
2	IIA	10	1	6	3	4	1
3	IIB	11	3	7	7	12	3
4	III	14	8	16	9	12	7
5	IVA	7	6	13	8	7	5

6	IVB	5	4	7	3	6	2
7	IVC	2	2	1	1	1	2
TOTAL		51	24	50	32	43	21

Table 6. Distributions of NPC patients based on the results of Pathology by WHO every year

NO	Classification WHO	2011		2012		2013	
		N	%	N	%	N	%
1	Squamus Cell Carcinoma (WHO-1)	0	0	0	0	0	0
2	Non-keratinizing carcinoma.(WHO- 2)	3	4.00	6	7.32	2	3,12
3	Undifferentiated carcinoma.(WHO- 3)	72	96.00	76	92.68	62	96.88
TOTAL		75	100	82	100	64	100

DISCUSSION

This research was conducted in the departement of ENT Sanglah hospital and conducted from January 2011 to December, 2013, there were 221 patients with NPC in accordance with the criteria inclusion of the sample study.

The highest population in the year 2012 as many as 82 people from the total number of patients with nasopharyngeal carcinoma. From table 4.2. obtained nasopharyngeal carcinoma patients by sex was found in 2011 the highest in men 51 people (68.00%), in 2012 the highest in males as many as 50 people (60.98%) and in 2013 was also highest in males - laki by 43 people (67.18%). The results are consistent with research Yenita (Padang 2008) which shows the incidence of male more over a period of three years (2006-2008) obtained a total of 32 cases (71.1%).¹⁶

NPC patients most often found in the age group 41-50 years, ie in 2011 as many as 29 people (38.66%), in 2012 as many as 27 people (32.92%) and in 2013 as many as 20 people (31.25 %). The results are consistent with research Ferry Sofyan (Medan, 2009) which showed that most patients with nasopharyngeal carcinoma at the age of 41-50 years, which amounted to 50 people (33.1%) and lowest in the 71-80 year age of 4 people (2.6%). And also according to the research Henny (2006) found the highest incidence of nasopharyngeal carcinoma in the age group 41-50 years with 79 cases (30.4%).¹⁷

NPC patients based on the stage most often found in stage III, where in 2011 as many as 22 people (29.33%), in 2012 as many as 25 people (30.49%) and in 2013 as many as 19 people (29.69%). While the research Ferry Sofyan (Medan, 2009) it is known that patients with nasopharyngeal carcinoma comes with advanced stage is stage IV as many as 75 people (49.7%) and are rarely found in stage I by 2 persons (1.3%).¹⁷

NPC patients based on sex was found in stage III more in males than females in each year that in 2011 as many as 14 people (27.45%), in 2012 as many as 16 people (32.00%) and year 2013 as many as 12 people (27.91%). From table 4.6. Nasopharyngeal carcinoma patients based on the results obtained Anatomical Pathology at most on the WHO classification-3 which in 2011 amounted to 72 (96.00%), in 2012 by 76 (92.68%) and in 2013 a number of 62 (96.88%). Similarly, in the study Yenita (Padang, 2008) is found throughout the cases of nasopharyngeal carcinoma patients with non-keratinized picture (WHO-2 and WHO-3) have the same number of cases many, namely respectively 17 cases (37.8%).¹⁷

CONCLUSIONS

The distribution of patients with nasopharyngeal carcinoma (NPC) highest in 2012. That found male the highest cases than female, based on the stage most often found in stage III and histopathologic examination at most on the WHO classification-3.

ADVICE

- Optimizing data distribution nasopharyngeal carcinoma patients at the Ear Nose Throat-Head Neck Surgery Hospital Sanglah.
- Further research needs to be conducted with a sample of more as a reference to determine the distribution of patients with nasopharyngeal carcinoma development in Indonesia.

REFERENCES

1. William I. Wei. Nasopharyngeal Cancer. In: Bailey Byron J, Johnson Jonas T, Newlands Shawn D., editors. Head & Neck Surgery-Otolaryngology. Lippincott Williams & Wilkins, 4th Edition, 2006; 7: 117.
2. Oncology Study Group-Head Neck Surgery PERHATI-KL. In: Demographic Research Proposal Nasopharyngeal Carcinoma in Indonesia.2014. H: 1-9.
3. Anita Jeyakumar, Todd M Brickman, Alwin Jeyakumar, Timothy Doerr. Review of nasopharyngeal carcinoma. Ear, Nose & Throat Journal. Proquest Medical Library, March 2006; 85: 3.
4. ATC Chan and E. Felip. Nasopharyngeal Cancer. In: ESMO Clinical Recommendations for diagnosis, treatment and follow-up. 2009; March 16, 2014 <http://www.annoc/mdp/21716698>.

5. American Joint Committee on Cancer. In: AJCC Cancer Staging Atlas.2006. P. 45-56.
6. Zeng Sheng, Yi Mu Xin Zeng. Pathogenesis and etiology of Nasopharyngeal Carcinoma. In: Cancer Center of Sun Yat-sen University. March 20, 2014, <http://www.cancer.org/cid/document/003124-pdf>.
7. American Cancer Society. Nasopharyngeal Cancer. 10 March 2014 <http://www.cancers.org/acs/groups/cid/documents/003245-pdf>
8. Harry A. Asroel. Radiotherapy In Nasopharyngeal Carcinoma Management. Ear Nose Throat Section University of North Sumatra. 2002; downloaded dated March 16, 2014 in <http://respiratory.usu.ac.id/bitstream/123456789/26633/4/chapter%2002.pdf>.
9. Chan J.K.C., Bray F, McCarron P, Foo W. Nasopharyngeal carcinoma. In: Barnes L, Eveson J.W., Reichart P, Sidrasky D editors. WHO classification of tumors: Pathology and genetics of head and neck tumors. Lyon: IARC Press, 2005; 85-79.
10. Kartika H. Management Nasopharyngeal Carcinoma towards combination therapy / chemotherapy radioterapi. Available March 10, 2014 .http. Www.karsinoma nasofaring-diagnosis-epidemiologi-prognosis.com/doc/116016654.
11. Thompson L. Malignant neoplasms of the nasal cavity, paranasal sinuses, and nasopharynx. In: Thompson L. editor. Head and neck pathology. Philadelphia: Elsevier, 2006; p.170-3.
12. Kumar S. Epidemiological and etiological factors associated with nasopharyngeal carcinoma. ICMR Bulletin. 2003; 33.
13. Lutan R. Nasution Nasopharyngeal Carcinoma YU. Magazine Pathology Indonesia. 2002; 11: 34 -41.
14. Digby K.H. Nasopharyngeal Carcinoma. 1951. P.254-65. March 20, 2014. <http://www.nlm.nih.gov/pmc/articles/PMC2238562> .
15. Ghorayeb B.Y. Otolaryngology-Head and Neck Surgery. Texas. 2012. 15 March 2014. <http://ghorayeb.com/nasopharyngealsquamouscellcarcinoma.html> .
16. Henny Priya Dharishini. Characteristics of Patients with Nasopharyngeal Carcinoma picture at the General Hospital Haji Adam Malik, Medan From January until December 2009
17. Wulan Melani, Ferryan Sofyan. Characteristics Nasopharyngeal Cancer Hospital Adam Malik in 2011.