EPIDEMIOLOGY STUDY OF NASOPHARYNGEAL CARCINOMA PATIENTS IN BANGLI HOSPITAL AT 2015-2017

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Abstract

Introduction: Nasopharyngeal carcinoma (NPC) is a malignancy of the nasopharyngeal epithelium. Nasopharyngeal carcinoma is the five positions among other malignancies..

Objective: To determine distribution of NPC patients at department of ENT Bangli hospital, period January 2015-December 2017..

Method: This study collecting data from the medical record of NPC patients from the outpatient's clinic ENT Bangli hospital and Department of Pathologic Anatomy Bangli hospital.

Result: The distribution of NPC was conducted from January 2015 until December 2017 there were 169 patients. This research obtained the highest NPC patients in 2016 as 67 cases. NPC based on sex in 2015 is male as 58.70%, in 2016 is males as 64.18% and 2017 is males as 64.29%. NPC based on age group is 41-50 years that in 2015 as 34.70%, in 2016 as 40.30% and by age group 51-60 years in 2017 as 41.07%. NPC patients based on stage most in stage III in 2015 as 39.13%, in 2016 as 35.82% and in 2017 as 28.57 %. NPC patients based on sex was found in stage III were males in 2015 as 14 cases, in 2016 as 16 cases and 2017 as 12 cases. NPC patients based on histopathology most on the WHO-3 classification, in 2015 as 95.65%, in 2016 as 92.54% and in 2017 as 94.64%.

Conclusion: Distribution of NPC in Bangli hospital from January 2015 until December 2017 were 169 patients. This research obtained the highest of NPC in 2016 as 67 cases. NPC most found in male in 2016, as 64.18%. NPC most found in 41-50 year, in 2016 as 40.30%. NPC most found in stage III, in 2016 as 35.82%. NPC most found in male with stage III in 2016 as 16 cases. NPC most found with WHO-3 classification in 2016 as 92.54%

Article Info

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1. INTRODUCTION

Nasopharyngeal carcinoma (NPC) is a malignancy of the nasopharyngeal epithelium found in the nasopharynx and first reported by Regaud and Schmincke in 1921 [1, 2]. Nasopharyngeal carcinoma is in the top five position after 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-KL [3, 4].

In Indonesia, the incidence of nasopharyngeal carcinoma almost evenly in every region, in Cipto Mangunkusomo Hospital Jakarta found more than 100 cases per 100.000 population, Hasan Sadikin Hospital found 60 cases per 100.000 population and in Sanglah Hospital Denpasar found more than 200 new cases per 100.000 population [3].

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 Guangdong 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 et al, 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 [5, 6].

In connection with the statement and the reasons are given above to encourage us to do research to determine the distribution of nasopharyngeal carcinoma patients in Bangli hospital. 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 Bangli hospital 2015-2017.

2. MATERIAL AND METHODS

2.1 Research Methods

This is a descriptive study by collecting data from the medical record of NPC patients who come to the outpatient's clinic ENT Bangli hospital and data from the Department of Pathologic Anatomy Bangli hospital. Sampling was carried out at the clinic ENT Bangli Hospital from January 2015 to December 2017.

2.2 Research Procedure

The study population was all the people who are already diagnosed with NPC by histopathological examination results that come to the outpatient's clinic ENT Bangli hospital. Samples were part of the study population who met the inclusion criteria. Inclusion criteria are patients newly diagnosed with NPC based on the results of his histopathological examination in the period January 2015 to December 2017, Exclusion criteria are patients with NPC post treatment chemoradiation. The staging of NPC patients refers to TNM staging of malignant tumors of the nasopharynx by the American Joint Commite on Cancer (AJCC). Samples were taken sequentially from patients who were in accordance with the inclusion criteria who came to the out patients clinic ENT Bangli hospital.

3. RESULT

This research was conducted in Bangli hospital, there were 169 patients newly 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 2016 as many as 67 cases (graphic 1). NPC patients based on sex in 2015 with a male 27 cases (58.70%), in 2016 male patients of 43 cases (64.18%) and in 2017 male patients 36 cases (64.29%) (graphic 1). NPC patients most often found by age group 41-50 years that in 2015 as many as 16 cases (34.70%), in 2016 a total of 27 cases (40.30%) and by age group 51-60 years in 2017 as many as 23 cases (41.07%) (graphic 3). NPC patients based on the stage most often found in stage III, where in 2015 the number of patients with

NPC as 18 cases (39.13%), in 2016 as 24 cases (35.82%) and 2017 as 16 cases (28.57 %) (graphic 2). NPC patients based on sex was found in stage III more in males than females in every year that in 2015 a total of 14 cases, in 2016 as many as 16 cases and 2017 a total of 12 cases (graphic 3). NPC patients based on the results of histopathology at most on the WHO-3 classification, in the year 2015 as many as 44 cases (95.65%), in 2016 as many as 62 cases (92.54%) and in 2017 were 53 cases (94.64%) (graphic 4).

Graphic 1. The population of patients with NPC and distributions patients based on sex

Graphic 2. Distributions of NPC patients based on age group

Graphic 3. Distributions of NPC patients based on the stage and sex

Graphic 4. Distributions of NPC patients based on the results of Pathology by WHO

4. DISCUSSION

This research was conducted in the department of ENT Bangli hospital and conducted from January 2015 to December 2017, there were 169 patients with NPC in accordance with the criteria of the study sample.

The highest population in the year 2016 as many as 67 patients from the total number of patients with nasopharyngeal carcinoma. From table 2. Obtained nasopharyngeal carcinoma patients by sex was found in 2015 the highest in males 27 cases (58.70%), in 2016 the highest in males as many as 43 cases (64.18%) and in 2017 was also highest in males 36 cases (64.29%). 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%) [4, 7, 8].

NPC patients most often found in the age group 41-50 years, in 2015 as many as 16 cases (34.78%), in 2016 as many as 27 cases (40.30%) and in 2013 found in the group 51-60 years as many as 23 cases (41.07 %). 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 cases (33.1%) and lowest in the 71-80 year age of 4 cases (2.6%). Moreover, 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%) [9-11].

NPC patients based on the stage most often found in stage III, wherein 2015 as many as 18 cases (39.13%), in 2016 as many as 24 cases (35.82%) and in 2017 as many as 16 cases (28.57%). While the research Ferry Sofyan (Medan, 2009) it is known that patients with nasopharyngeal carcinoma come with an advanced stage is stage IV as many as 75 cases (49.7%) and are rarely found in stage I by 2 cases (1.3%) [12-14].

NPC patients based on sex was found in stage III more in males than females in each year that in 2015 as many as 14 cases, in 2016 as many as 16 cases in 2017 as many as 12 cases. From table.6. Nasopharyngeal carcinoma patients based on the results obtained Anatomical Pathology at most on the WHO-3 classification which in 2015 amounted to 44 cases (95.65%), in 2016 amounted 62 cases (92.54%) and in 2017 amounted 53 cases (94.64%). 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%) [13, 15, 16].

5. CONCLUSION

The highest distribution of patients with nasopharyngeal carcinoma (NPC) is in 2016. 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-3 classification. 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.

REFERENCE

- Bailey BJ, Johnson JT, Newlands SD. Head & neck surgery--otolaryngology: Lippincott Williams & Wilkins; 2006.
- Jeyakumar A, Brickman TM, Jeyakumar A, Doerr T. Review of nasopharyngeal carcinoma. Ear, nose, throat journal. 2006;85(3):168-84.
- PERHATI-KL OSG-HNS. Demographic Research Proposal Nasopharyngeal Carcinoma in Indonesia. 2014:1-9.
- Green F, Page D, Fleming I, Fritz A, Balch C, Haller D, et al. American Joint Committee on Cancer. 2006.
- Jeyakumar A, Brickman TM, Jeyakumar A, Doerr TJE, nose, journal t. Review of nasopharyngeal carcinoma. 2006;85(3):168-84.
- Chan A, Filip E, Group EGW. Nasopharyngeal cancer: ESMO clinical recommendations for diagnosis, treatment and follow-up. Annals of Oncology. 2009;20(suppl_4):iv123-iv5.
- Zeng M-S, Zeng Y-X. Pathogenesis and etiology of nasopharyngeal carcinoma. Nasopharyngeal Cancer: Springer; 2010. p. 9-25.
- H K. Management Nasopharyngeal Carcinoma towards combination therapy/chemotherapy radiotherapy.
- Asroel HA. Radiotherapy In Nasopharyngeal Carcinoma Management. 2002.
- Lutan R, YU N, editors. Karsinoma nasofaring. Program dan abstrak pertemuan ilmiah tahunan Seminar Kanker Nasofaring Medan; 2001.
- Indonesia RACAOP. Cancer histopathological data Indonesia in 2003. Indonesian Cancer Foundation Directorate General of Medical Services MOH. 2003.
- Digby KH. Nasopharyngeal Carcinoma: Otolaryngology Lecture delivered at the Royal College of Surgeons of England under the auspices of the Institute of Laryngology and Otolaryngology* on 5th July, 1951. Annals of the Royal College of Surgeons of England. 1951;9(4):253.
- Yenita AA. Retrospective Study of Nasopharyngeal Carcinoma In West Sumatera: Reevaluation Subtype Histopathology Based on the WHO classification.
- Melani W. Karakteristik Penderita Kanker Nasofaring di Rumah Sakit H. Adam Malik Medan Tahun 2011. e-jurnal Fakultas Kedokteran USU. 2013;1(1).
- Society AC. Nasopharyngeal Cancer. 2014.
- Annisa R. Hemoglobin levels relationship with tumor responses in patients with cervical cancer who receive radiation therapy at Dr dr.Sardjito. 2013:1-43.