

Characteristics and treatment patterns of patients diagnosed with nasopharyngeal carcinoma in Indonesia: A descriptive study using the national health insurance database

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ABSTRACT

Background: Nasopharyngeal carcinoma (NPC) is a common cancer in Indonesia. To our knowledge, there has been no large-scale national study that has evaluated the characteristics of patients with NPC in the country. This study aims to understand the demographics, clinical characteristics and treatment of patients diagnosed with NPC in Indonesia.

Methods: A retrospective database analysis was performed using a nationally representative sample of 1% of the JKN population, comprising 2.1 (2019) to 2.4 million (2022) JKN members, from 2019 to 2022. Around 90% of the population was insured by NHI in 2022. Patients were included if they had at least two medical visits related to NPC and no prior cancer diagnosis in the year before (identified using International Classification of Disease, Tenth Revision (ICD-10) codes) between 2019-2021. The first visit with NPC was considered the index date. Descriptive analyses were conducted to evaluate the characteristics of NPC patients at the index date. We computed the Charlson Comorbidity Index (CCI) based on medical history a year before the index date, and treatment status based on a year after index date. Continuous variables were summarized using mean and standard deviation (SD), while categorical variables were presented using proportion.

Results: The final sample consisted of 262 patients diagnosed with NPC. Sixty-eight percent of these patients were male. The mean age at index date was 48.7 years (SD 12.6). Around 58% were aged between 45-65 years, while 32% were aged between 25-44 years. One-third of patients were residing in Java, while 28% each were in Bali (including Nusa) and Sumatra. Most patients (70%) were diagnosed at public hospitals. Around half (54%) of the patients did not have any diagnosed comorbidity, while one-third had a CCI score of ≥ 5 . Only one (0.4%) patient underwent surgery. About 29% did not receive any treatment. Around 49% received both chemotherapy and radiotherapy, 11% received chemotherapy alone, and 12% received radiotherapy only.

Conclusion: This study provides descriptive information about patients with NPC in Indonesia. A significant number of NPC patients had multiple comorbidities.