A Case Report of Laryngeal Neuroendocrine Carcinoma

WULANDARI Dian Paramita [1]; DHARMA Hermawan Surya [1], RIZKI Syafiq Muhammad [1]
1 – Otorhinolaryngology-Head and Neck Surgery Department, Dr. Sardjito General Hospital / Faculty of Medicine, Public Health, and Nursing, Gadjah Mada University, Yogyakarta, Indonesia

A. Introduction
Neuroendocrine carcinoma (NEC) is a rare type of tumor with neuron and endocrine properties. It accounts for less than 1% of laryngeal cancer. This tumor mainly occurs in older patient, mostly who has a long-term smoking history. WHO classifies laryngeal NEC into 5 categories as typical carcinoid, atypical carcinoid, small-cell carcinoma, combined small cell and non-small cell carcinoma (squamous cell and adenoscarcinoma) and paranganglioma.

B. Case Presentation

A 67-year-old man came to the outpatient clinic on February 2018 with a 2-month history of hoarseness and dysphagia, accompanied by occasional shortness of breath. He used to smoke since he was young until he quit smoking 2 years before. ENT examination was normal. Endoscopic examination showed a vascular blush mass in the supraglottic area, which partially obstructed the view of laryngeal inlet and airway (Figure 1A). The mass was pedunculated and moved with each inspiration and expiration. The patient underwent direct laryngoscopy and biopsy (Figure 2). The histopathological examination revealed the tumor as small cell NEC. Further examination showed no metastasis to other organs.

The operation removed the tumor from its stalk on the right arytenoid. In the post-operative healing process, only a small portion of the tumor stalk remained. The patient received further treatment with chemoradiation in another hospital and returned to our hospital for post-treatment evaluation. Post-treatment endoscopy showed a patent airway with no signs of the tumor (Figure 1B-D). Evaluation by computerized tomography and endoscopy was done periodically on 1, 3, and 6 months after (Figure 3). There was no recurrence during follow-up period of 15 months.

C. Discussion

Laryngeal cancer accounts for 30-40% of all the malignancies of the head and neck and among laryngeal cancer, NEC accounts for less than 1%. NEC mainly occurs in older patients, mostly with long-term smoking history. The NEC patients usually present with hoarse voice, dysphagia, and pain. These characteristics match with the patient’s case. The metastasis is found at 12-22% of the patients at the presentation. In this case, further examination to the patient showed no metastasis to other organs. In small cell NEC, surgery alone is not sufficient for therapy in the majority of cases. Adjuvant radiotherapy and chemotherapy is needed. The prognosis of small-cell NEC is poor and clinical course tends to deteriorate rapidly. The patient in this case is treated with surgical procedure and chemoradiation. The tumor recurrence was not detected during follow-up period of 15 months.

D. Conclusion
A rare case of laryngeal neuroendocrine carcinoma was detected in endoscopy. The patient underwent surgical procedure and chemoradiation. Follow-up for 15 months showed no recurrence of the tumor.

E. Reference


