A Case of Multiple Cranial Neuropathy Caused by Nasopharyngeal Necrosis Occurring Long after Radiotherapy

Hiroshi Gomibuchi, Yuko Shimotatara, Taisuke Nakamura, Yoichi Ikenoya, Naokazu Fujii, Go Takahashi, Sei Kobayashi and Toshikazu Shimane

We report a case of multiple cranial neuropathy caused by nasopharyngeal necrosis occurring long after radiotherapy for nasopharyngeal carcinoma. The patient was a 63-year-old male with the chief complaint of headache. He had received chemoradiotherapy for nasopharyngeal carcinoma 27 years earlier and for paranasal sinus cancer 19 years earlier. Endoscopy revealed nasopharyngeal necrosis, and a contrast-enhanced CT of the neck revealed a low-density area across a wide region from the skull base to the nasopharynx. The patient was also found to have paralysis of the left glossopharyngeal nerve, right vagus nerve, left accessory nerve, and the hypoglossal nerves bilaterally. Although systemic administration of antimicrobial agents and steroids halted the progression of the necrosis, the cranial neuropathy remained.

Treatment with appropriate radiation doses is necessary to mitigate the adverse events of radiotherapy, and adequate consideration must be given to radiation exposure, particularly in cases of relapse and cases such as this one, in which adjacent areas are also involved.

Keywords: multiple cranial neuropathy, nasopharyngeal necrosis, radiation exposure

References
1) 日本頭頸部癌学会編: III-3 上咽頭癌、頭頸部癌診療ガイドライン 2009 年版 (第 1 版), 14-16 頁, 金原出版株式会社, 東京, 2009.
The endoscopic examination reveals ulcer formation in the nasopharynx (arrow).

CT scan after enhancement showing the ulcer formation in the nasopharynx (arrow) and the narrowing of the bilateral internal carotid arteries (large arrow).

CT scan after treatment showing the obstruction of the left internal carotid artery and the narrowing of the right internal carotid artery.