

## Case Report : Successful Feeding Using Oro-Esophageal Tube In a Patient with Pontine Infarction

Chang Hee Lee, Yong Kyun Kim

Department of Physical Medicine and Rehabilitation, Myongji Hospital

### INTRODUCTION

- Dysphagia is a common problem in patients with cerebrovascular disease. In particular, it is known to occur more frequently in patients with problems in the pontine. Dysphagia can lead to malnutrition, dehydration, pneumonia, and even death.
- There are various methods for managing dysphagia, including dietary changes, swallowing rehabilitation, nasogastric tube and percutaneous gastrostomy, among others. Among these, the Oroesophageal tube (O-E tube) is known as a relatively simple and safe method to provide nutrition to severe dysphagia patients.
- This case report describes a successful use of O-E tube for feeding in a patient with dysphagia due to pontine infarction.

### Case presentation

- M/60 patient with a history of dyslipidemia and gout
- Experienced vertigo, dysarthria, and left side weakness while working in Vietnam on August 11, 2022. The next day, he developed right side weakness and mental changes, and subsequently presented to a Vietnamese hospital where an examination revealed a right pontine infarction. Thrombectomy and intubation were performed, followed by tracheostomy.
- The patient was transferred to a neurology department in Korea on August 31, 2022, and then to a rehabilitation medicine department on September 14, 2022, where he remained in a tracheostomy state. The MMSE score was 25 and the NIHSS score was 9. The patient was receiving nutrition via a nasogastric tube, but complained of discomfort due to the tube, as his cognitive function was not significantly impaired.
- A Video-fluoroscopic swallow study (VFSS) exam conducted on September 15, 2022, revealed aspiration even with the ingestion of small amounts of semi-solid and liquid. Additionally, the patient had no gag reflex on the left side and there was a large amount of remnant in the left pyriform sinus during the examination. An airway evaluation was conducted by an ENT specialist on September 16, 2022, and both vocal fold palsy was observed, with incomplete closure in the open state.
- Considering the above findings, the most appropriate method of nutrition delivery for the patient was determined to be the O-E tube. On September 20, 2022, the patient's wife was present during a feeding education session conducted in the VFSS exam room, where the O-E tube was used. The patient was subsequently fed through the O-E tube and received dysphagia rehabilitation. Until his discharge on October 6, 2022, he did not develop aspiration pneumonia and was able to maintain successful nutrition delivery through the O-E tube.

- After discharge, he continued with outpatient follow-up, and a VFSS exam conducted on January 5, 2023, revealed no aspiration when ingesting small amounts of semi-solid food. Therefore, it was recommended to continue with both oral feeding and O-E tube feeding. After that, the patient's nutritional needs were met through oral feeding alone, so the O-E tube feeding was discontinued. Currently, the patient is continuing to maintain excellent oral feeding without any signs of infection.

Figure. 1 Initial VFSS. remnant and aspiration was observed



Figure. 2-1 After discharge. F/U VFSS during swallow



Figure. 2-2 After discharge. F/U VFSS. no aspiration sign and reduced remnant observed.



### CONCLUSION

- The patient is a case of right pontine infarction, who successfully progressed to diet build up through O-E tube and dysphagia rehabilitation.
- For patients with dysphagia due to neurological disorders, it is common practice to retain a nasogastric tube for an extended period to ensure the patient's safety and adequate nutritional support.
- However, in cases like this patient with no gag reflex and sufficient cognitive function, the O-E tube can be a great treatment strategy that can be easily applied.