


Pneumonia in Parkinson's disease: barium aspiration in videofluoroscopic swallowing study

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Keywords

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Clinical Image

A 78-year-old male patient with Parkinson's disease was hospitalized because of pneumonia. He choked on liquids and solid foods progressively in the recent six months. Clinical swallowing assessment revealed pre- and post-swallowing wet voice and delayed swallowing reflex. The patient also received videofluoroscopic swallowing study (VFSS) to assess the dynamic swallowing process in oral, pharyngeal, and oesophageal phases [1]. The chest radiography immediately after VFSS revealed aspiration of barium into his bilateral bronchial trees with a more prominent aspiration on the left side and at bilateral pyriform sinus in hypopharynx (Fig. 1). Rather than right-sided bronchial tree barium dislodgement predominance in most of the cases, left-sided predominance can be related to poor trunk control and truncal deviation in Parkinson's disease. For dysphagia, our speech-language pathologist provided swallowing training to strengthen oral and pharyngeal muscles, stimulate swallowing reflex, and

Key message

Barium aspiration into the tracheobronchial tree is a remarkable warning sign of dysphagia-related aspiration pneumonia. Clinical swallowing assessment is warranted for patients with aspiration pneumonia and videofluoroscopic swallowing study is a good add-on tool for dysphagia treatment plan. In patients with Parkinson's disease, dysphagia is often overlooked due to atypical presentations.



Figure 1. Barium retention in the tracheobronchial tree, more on the left side and the pyriform sinus in the hypopharynx on videofluoroscopic swallowing study (VFSS).

promote safe swallowing technique. After a two-week treatment of aspiration pneumonia, the patient was discharged with his nasogastric tube remained. We also educated the patient's caregiver and family for the necessity of nasogastric tube placement at the moment and swallowing training for severe dysphagia in this patient, and also informed them about the risk of aspiration in oral feeding.

Disclosure Statement

Appropriate written informed consent was obtained for publication of this case report and accompanying images.

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Reference

1. Mandell LA, and Niederman MS. 2019. Aspiration pneumonia. *N. Engl. J. Med.* 380:651–663.