Case Reports

Prolonged Pharyngeal Impaction of Dentures Following Stroke

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Dysphagia is a well-recognized complication of stroke. We report two cases of dysphagia in stroke patients caused by the pharyngeal impaction of dental prostheses. Radiologic identification of such impaction is unreliable due to the increasing use of radiolucent material in dental prostheses. We recommend direct or indirect laryngoscopy to exclude foreign body impaction in all patients complaining of dysphagia. (Stroke 1989;20:1748–1750)

Dysphagia is a not-uncommon complication of stroke. We report two cases of deglutition of dentures following stroke, resulting in obstruction of the pharynx and esophagus. These cases stress the need for all patients presenting with dysphagia to receive full investigations, including complete physical examination with direct or indirect laryngoscopy.

Case 1

A 59-year-old edentulous man received a general anesthetic for transurethral resection of the prostate. Immediately following the operation it was evident that he had suffered a stroke. Examination revealed an expressive dysphasia, left-sided hemiparesis, and an absent gag reflex. On the sixth postoperative day, he complained of the sudden onset of dysphagia. The cause of this new symptom was initially undetermined, but it was believed to be the result of a new or progressing stroke. At the time, no significance was attached to the patient’s noted absence of one set of dentures. He was transferred to the medical team for rehabilitation.

Over the following weeks the patient’s speech and hemiparesis gradually improved, but his dysphagia to solids and liquids persisted. The original assumption that his dysphagia was due solely to his stroke was questioned; thus, investigations were initiated. These investigations included a chest radiograph, which was normal, and barium swallow, which demonstrated pooling of contrast media in the hypopharynx, with some aspiration into the trachea. Radiologic interpretation seemed to support the diagnosis of pharyngeal dysfunction. The dentures were not seen as they were constructed of a radiolucent resin.

The patient was therefore referred to otolaryngologists for consideration of pharyngeal myotomy. However, indirect laryngoscopy located the patient’s lower set of dentures in the postcricoid area of the hypopharynx. The dentures were later removed, with immediate relief of the patient’s symptoms.

Case 2

A 64-year-old edentulous woman presented with a 10-week history of increasing dysphagia, weight loss of 19 kg, and a recent episode of hemoptysis. She had previously sustained two strokes, the last 17 months earlier. Examination revealed a thin woman with a slight residual right hemiparesis.

Investigations included a chest radiograph, which demonstrated hyperinflated lung fields but no focal pulmonary lesion. At fiberoptic bronchoscopy, her pharynx was found to be totally occluded by an ulcerating lesion. A barium swallow was therefore performed.

The unenhanced film demonstrated a set of dentures in the hypopharynx (Figure 1, left). The dentures totally occluded her esophagus; most of the barium passed down the right main bronchus (Figure 1, right). An attempt to remove the dentures via rigid esophagoscopy failed as they were deeply embedded in the pharyngeal tissues. The dentures were eventually removed via a pharyngotomy. The patient made a good recovery postoperatively.

Discussion

Dysphagia is a recognized complication of stroke, occurring in approximately 42% of patients. Other causes for dysphagia, such as benign stricture, achalasia, neoplasia, esophageal spasm, systemic sclerosis, cricopharyngeal pouch, infections of the

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mouth, pharynx, and esophagus, myasthenia gravis, and foreign body impaction, however, should be excluded. Both patients described had sustained strokes. Initial physical examination did not include direct or indirect laryngoscopy. As a result, the belief that their dysphagia was purely a consequence of their strokes led to a delay in the investigation and diagnosis and to considerable morbidity.

Impaction of dentures in the esophagus is uncommon. Swallowed dentures are usually partial or broken. In both of our cases, however, entire dentures were swallowed and impacted without the patient’s being aware of it. This probably reflects the degree of neurologic damage from their strokes.

Prolonged impaction of denture material in the esophagus has been described once before, causing recurrent laryngeal nerve palsy and temporary dysphagia. This occurrence followed alcohol intoxication and trauma and involved a fragment of dental plate.

Although strokes are common, in all patients complaining of dysphagia a high index of suspicion must be maintained for other causes of dysphagia, including foreign body impaction. The increasing use of radiolucent material in dentures means radiologic identification of them is unreliable. A complete physical examination, including direct or fiberoptic laryngoscopy, is essential in all patients presenting with dysphagia.
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References


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