

# Dysphagia Caused by Cervical Plate Erosion through the Hypopharynx

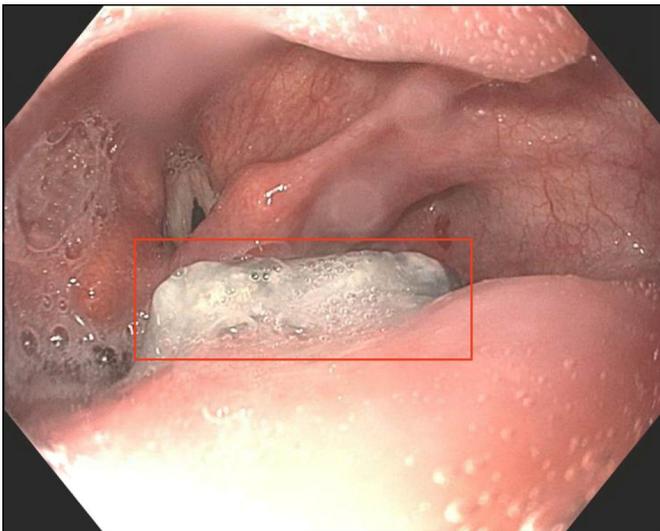
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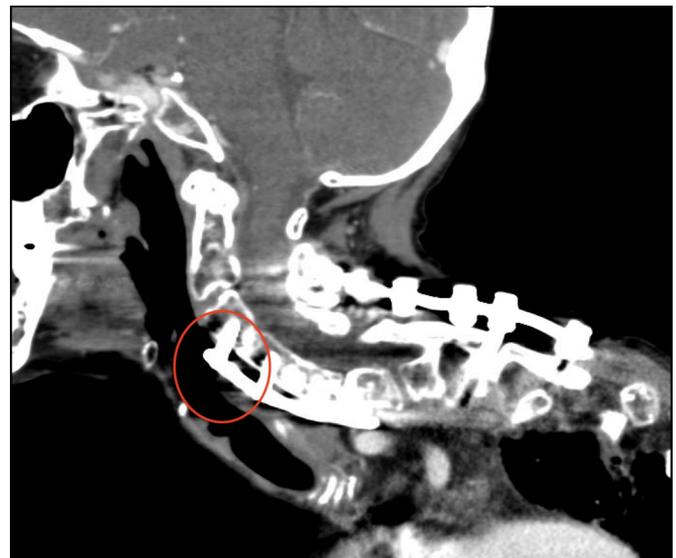
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## CASE REPORT

A 53-year-old woman with a history of neurofibromatosis, Hodgkin's lymphoma, and C3-T2 fusion 4 years prior for swan-neck cervical deformity was admitted for evaluation of left frontal skull mass and progressively worsening dysphagia of solid foods and thick liquids over 6 weeks. Computed tomography (CT) of the abdomen, pelvis, and lumbosacral spine showed multiple hypodense liver lesions and diffuse sclerotic bone lesions within the thoracic and lumbar spine, ribs, sacrum, and ischium suspicious for metastatic malignancy. Fine-needle aspiration of the liver lesions yielded immunochemistry positive for focal CA 19-9 staining suggestive of adenocarcinoma of upper gastrointestinal (GI) origin. Serum CEA and CA 19-9 were within normal limits. Esophagogastroduodenoscopy did not reveal an upper GI tumor; however, a metal object was seen in the hypopharynx just above the upper esophageal sphincter (Figure 1). It appeared to be fixed and could not be moved with grasping forceps. The adult gastroscope could not be advanced beyond the object; however, the ultraslim could. A sagittal CT view of the neck with contrast showed the offset of the anterior cervical internal fusion plate with direct communication to the hypopharyngeal airway and suggesting erosion through the posterior hypopharyngeal soft tissue (Figure 2). Given the patient's multiple comorbidities and presumably metastatic cholangiocarcinoma, neurosurgery service recommended medical management rather than surgical management. A 6-week course of intravenous ertapenem was initiated due to the high risk of abscess formation. The patient underwent gastric tube placement for feeding and was eventually discharged under hospice care.



**Figure 1.** Esophagogastroduodenoscopy showing a foreign metal object in the hypopharynx above the upper esophageal sphincter.



**Figure 2.** Sagittal view of the neck with contrast-enhanced computed tomography showing direct communication between the anterior cervical internal fusion plate and the hypopharyngeal airway.

ACG Case Rep J 2018;5:e104. doi:10.14309/crj.2018.104. Published online: December 19, 2018.

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Dysphagia is an underrecognized but significant complication of cervical fusion surgeries.<sup>1</sup> The incidence of esophageal perforation after anterior cervical spine surgery is estimated to be between 0.02% and 1.49% with a mortality rate of 6%.<sup>2</sup> Most esophageal erosions occur in the intraoperative or immediate postoperative setting, although there has been an increase in cases with delayed presentation, which often lead to dramatic clinical deterioration with a higher mortality risk of 20–50%.<sup>3</sup> Most esophageal injuries are due to iatrogenic injury intraoperatively from inappropriate placement or dislodgement of retractors or hardware migration. Delayed injuries are typically due to chronic compression, abscess formation, repetitive friction of the plating system, or hardware dislodgement and chronic migration.<sup>4</sup> Diagnosis can be made with cervical radiographs; however negative imaging does not rule out esophageal injury. Operative intervention is recommended, but conservative medical treatment is appropriate depending on the patient and the clinical circumstances.<sup>5</sup>

Although cervical endplate erosion of the esophagus has been well documented in the literature, hypopharyngeal erosion has only been reported once previously.<sup>6</sup> It is imperative that health care providers are vigilant and complete a thorough workup in patients with persistent or worsening dysphagia who have undergone a previous anterior cervical surgery.

## DISCLOSURES

Author contributions: S. Kothari and T. Almouradi wrote the manuscript. T. Almouradi is the article guarantor.

Financial Disclosure: None to report.

Informed consent was obtained for this case report.

Received April 2, 2018; Accepted November 12, 2018

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