

Case Report: Laryngeal Retention of a Video Capsule

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Video Capsule endoscopy was performed to evaluate an 86 year old man with iron deficiency anemia. He had previously undergone esophagogastroduodenoscopy and colonoscopy without identification of the source of the anemia. Following attempted swallowing of the capsule, the patient noted a sticking sensation in his throat, after which he consumed two full glasses of water in order



Figure 1B: Radiographic visualization of the retained capsule. (A) Left lateral and (B) posteroanterior radiographs of the chest demonstrate a metallic foreign body projecting over the right piriform sinus in a position anterior to the epiglottis.

to attempt capsule passage into the esophagus. Due to prolonged foreign body sensation, the patient was sent for urgent imaging of the capsule location by chest radiographs. While arrangements for endoscopic extraction were being made, the patient spontaneously ejected the capsule with a vigorous cough. Chest radiographs demonstrated retention of the capsule in the right piriform sinus (**Figures 1A & 1B**).

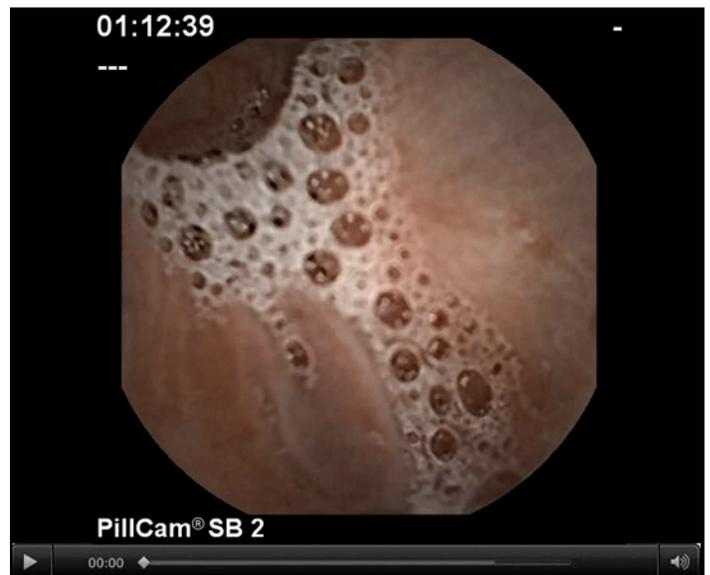
Here, for the first time, we present imaging from



Figure 1A: Radiographic visualization of the retained capsule. (A) Left lateral and (B) posteroanterior radiographs of the chest demonstrate a metallic foreign body projecting over the right piriform sinus in a position anterior to the epiglottis.



***Video 1:** Visualization of the capsule within the larynx. The video capsule demonstrates retention of the capsule within the larynx with intermittent views of upper respiratory structures.*



***Video 2:** Capsule expulsion. The video capsule is seen to pass to the level of the vocal cords and is subsequently expelled rapidly into the patient's hand following a vigorous cough.*

both X-ray (external) and video capsule (internal) demonstrating retention in the larynx (**Video 1**) with visualization of the vocal cords prior to spontaneous evacuation (**Video 2**).

Difficulty swallowing video capsules has been estimated to occur in roughly 2% of patients¹. Video capsule retention or aspiration, although uncommon, has been described previously (Koulaouzidis et al. 2009². Tracheal aspiration may necessitate capsule removal via flexible or rigid endoscopy³⁻⁵. An additional report describes the asymptomatic tracheal aspiration of a video capsule followed by spontaneous clearance via cough and subsequent swallowing leading to routine capsule passage via the gastrointestinal tract⁶. The youngest reported

capsule aspiration event occurred in a 64 year old man, with the median age of the 12 reported cases to date being 76. Although no deaths from capsule aspiration have been reported, there is a realistic risk of significant adverse events following these events in the elderly population. The second author of this report (AS) has had to perform a Heimlich maneuver during a failed attempt to swallow a capsule [personal communication]. Accordingly, we suggest taking a thorough history pertaining to difficulty in swallowing and dysphagia in the elderly population prior video capsule placement per os, with endoscopic placement in those at risk for aspiration who can tolerate upper endoscopy. It is also reasonable for gastroenterologists who routinely perform capsule endoscopy to be versed in techniques to resolve choking.

References:

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