

Aspiration – an important complication of small-bowel video capsule endoscopy

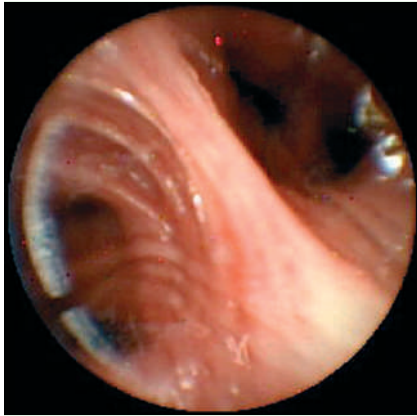


Fig. 1 Small-bowel video capsule located within bronchial tree.

A 93-year-old male with no significant past medical history was referred to our center for evaluation of gastrointestinal bleeding of an obscure source. His recent bidirectional endoscopic studies did not localize the source of bleeding. There was no clear history of any swallowing disorder.

The patient swallowed the capsule in the presence of a physician. He did not demonstrate any significant swallowing difficulty, aside from a minimal cough, which resolved after drinking some water. Over the next 8 hours, the patient remained asymptomatic and returned to the office for data recorder retrieval.

The data were downloaded immediately and it was discovered that the capsule had entered the bronchial system and remained above there for the duration of the study (● **Fig. 1**, ● **Video 1**). The patient was contacted immediately and emergency radiography of the chest was done. The study did not reveal the capsule in the bronchopulmonary tree; rather, the capsule was identified in the right colon after abdominal radiography. Upon further questioning, the patient admitted to coughing up some material several hours after capsule ingestion and subse-

quently swallowing it. Surprisingly, he remained asymptomatic during the study.

Aspiration of the small-bowel video capsule is an uncommon complication of this novel diagnostic procedure, but there are a few case reports describing respiratory discomfort and symptoms secondary to capsule aspiration [1,2]. The capsule measures 11 mm in diameter and 26 mm in length. In a large series of 733 capsule endoscopy studies, described by Rondonotti et al., difficulty or inability to swallow the capsule occurred in 11 patients, with one aspiration followed by spontaneous expulsion of the capsule by coughing [3]. As oropharyngeal transfer of the capsule into the esophagus initiates peristalsis, detailed swallowing history should be obtained to preclude the possibility of oropharyngeal disorders, especially in the geriatric population. Swallowing disorders are an absolute contraindication to standard capsule endoscopy study [4]. Fortunately, there are safe techniques of endoscopy-assisted capsule placement into the stomach or the proximal small bowel [5].

Endoscopy_UCTN_Code_CPL_1AI_2AB

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DOI 10.1055/s-2007-995327

Endoscopy 2007; 39: E343

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Video 1

Small-bowel video capsule located within bronchial tree.