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Letters to the Editor

Asymptomatic bronchial aspiration of capsule endoscope: a significant complication

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Dear Editor,

Capsule endoscopy is a safe and well-tolerated procedure allowing the direct, non-invasive mucosal investigation of the small bowel. There are, however, few limitations.

Case report

An 82-year-old man presented a four-month period of iron-deficiency anemia. No source of bleeding was obtained after conventional upper and lower endoscopy. Thus, video capsule endoscopy was indicated. Although the patient had not history of oropharyngeal dysphagia, swallowing of the capsule endoscope precipitated self-limited coughing. Twelve hours later fever, leucocytosis and dyspnea appeared, so that profilactic antibiotics were initiated. When the capsule endoscope was reviewed the device was located in the bronchial system (Fig. 1 A-C) and remained lodged in the carina for 25 minutes, throughout which the patient was asymptomatic. Passed this time, the capsule endoscopy moved spontaneously to the esophagus (Fig. 1D) and continued loading until the cecum. At this time, capsule endoscope bronchoaspiration was confirmed and antibiotic strategy was changed, improving respiratory symptoms.

Discussion

Capsule endoscopy is currently considered as a first line diagnostic tool for small bowel examination. It has been demonstrated to be an accurate, painless and well-tolerated procedure. However, although it is a safe technique, few adverse events have been published, being capsule aspiration one of them. Bronchoaspiration is an uncommon but dangerous capsule endoscopy-related adverse event, as the device can be retained in the airway until video visualization, resulting in potential respiratory failure (1). In some cases, it may be removed bronchoscopically (2). The incidence of capsule aspiration is very low (< 0.003%) (3), being in our experience the

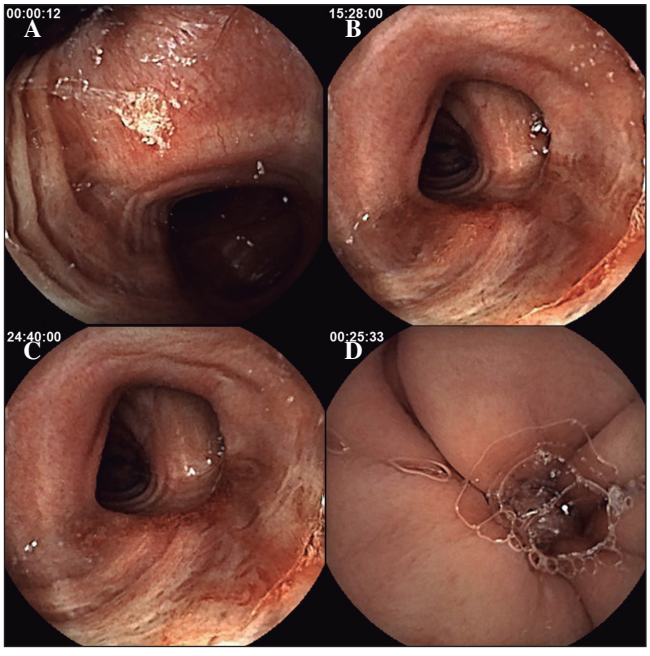

Fig. 1. Capsule endoscope aspiration into the bronchus during 25 minutes (A-C) until it was spontaneously removed to the esophagus (D).

first time this complication arises out of 2,500 explorations. Therefore, real time viewing is recommended. Moreover, in patients with swallowing difficulties, capsule endoscope should be placed endoscopically in the duodenum to eliminate aspiration risk.

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