

Case report: Esophageal Stricture and Bezoar Formation due to Prolonged Nasogastric Tube Placement

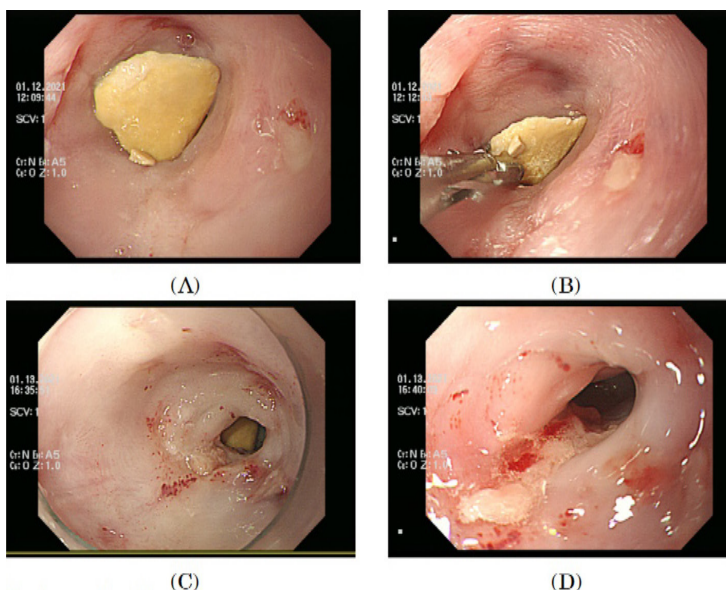
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Background: Bezoars are accumulations which are hardened in the gastrointestinal tract and are known to be very rare in the esophagus. In this study, we report a case of esophageal stricture and bezoar formation in the esophagus in a patient receiving nutrition through NG tube.

Case Presentation: An 84-year-old woman in a bedridden status with a medical history of right middle cerebral artery cerebral infarction presented to our ER with a complaint of difficulty in NG tube placement. Chest computed tomography images revealed an 1.4cm-sized foreign body in the gastroesophageal junction, and slight thickening of the esophageal wall in the distal esophagus and gastroesophageal junction. The patient underwent upper gastrointestinal endoscopy and an 1.5cm-sized yellow triangular bezoar at the lower esophagus was observed. We tried to remove it with the rat tooth forceps, with no success. The next day, we tried to cut the hanging bezoar with a snare, but failed and pushed it into the stomach. A narrowing in the lower esophagus was observed, and the gastroscope could no longer pass. Eventually, a jejunostomy tube was installed by a general surgeon, and after a gradual diet build up, she was discharged from the hospital.

Discussion: In this case, the esophageal mucosa was damaged by repeated NG tube placements, and a number of predisposing factors; the patient's prolonged disease period, supine position, a medical history of cranial nerve disease and diabetes, and the NG tube itself facilitated the gastric acid reflux. In the presence of a mucosal break due to the surface trauma, gastric acid reflux may induce the progression of inflammatory process along with the enlargement of the raw area and induce the esophageal muscle fibrosis. As a result, esophageal stricture may occur. It was also observed that common enteral feeding formula can coagulate and form a bezoar in the esophagus. As NG tube feeding is a standard routine practice in the clinical environment, it is important for the medical faculty to pay cautious attention to this rare, but detrimental complication.



Endoscopic Findings

- (A) The bezoar extending over the lumen at the lower esophagus, 35cm below the front teeth
- (B) Endoscopic trials to remove the bezoar with the rat tooth forceps, with difficulty due to its brittleness and tightly jammed position in the esophagus
- (C) The bezoar endoscopically pushed into the stomach
- (D) A narrowing of the lower esophagus, where the scope could not enter any further