Toothpick impaction with localized sigmoid perforation: successful double-balloon enteroscopic management

A 40-year-old man who had been experiencing intermittent left lower quadrant pain for approximately 1 month was referred to our gastroenterology division. General examination was normal, except for mild abdominal discomfort on deep palpation of the left lower quadrant. Double-balloon enteroscopy via the mouth revealed a 4×3-mm ulcer surrounded by erosions on the jejunal wall 2.5 m from the pylorus (**Fig. 1**). Double-balloon enteroscopy via the anus revealed a foreign body at approximately mid-sigmoid level, where a wooden toothpick was noted to be lodged in the lumen with erythema and edema of the surrounding bowel wall (**Fig. 2**). The impacted end of the toothpick was freed by gentle probing with a biopsy forceps, then grasped and extracted. To prevent accidental injury to the bowel wall, the toothpick was pulled into the overtube of the double-balloon enteroscope. As the 5.0-cm×2-mm wooden toothpick was being removed via the anus, the patient noted a dramatic and immediate decrease in his left lower quadrant discomfort. Subsequent questioning of the patient yielded a possible history of having accidentally swallowed some toothpicks. He was advised to continue parenteral antibiotic therapy for 24–48 hours. The patient was asymptomatic at telephone follow-up 1 week after leaving hospital and when he attended for the planned follow-up examination 3 months later.

It was reported as far back as 1941 that 9% of perforations were caused by impaction of wood splinters, toothpicks, and pencils in the gastrointestinal tract [1]. Historically, toothpick impaction in the lower gastrointestinal tract is managed by urgent surgery [2]. Obviously, operative removal of a toothpick that has caused frank perforation is prudent, but endoscopic removal of toothpicks from the duodenum, appendix, transverse colon, and rectum has been accomplished at acceptable rates of morbidity and mortality. Because a double-balloon enteroscope has a special protective overtube, it is safer than colonoscopy [3,4] when dealing with the bilateral pointed ends of a foreign body such as a toothpick.

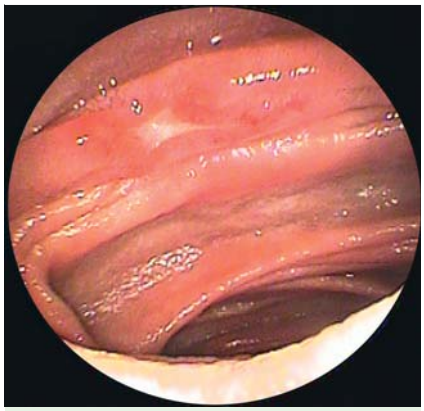

Fig. 1 Double-balloon enteroscopy via the mouth showing a 4×3-mm ulcer surrounded by erosions on the jejunal wall 2.5 m from the pylorus.

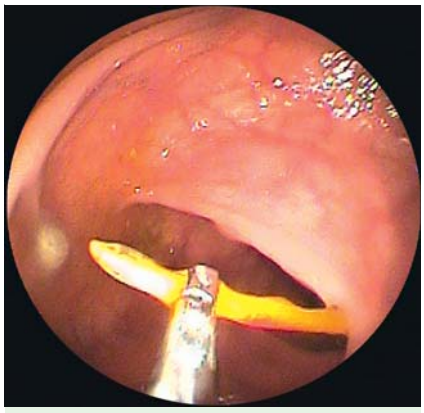

Fig. 2 Double-balloon enteroscopy via the anus revealed a wooden toothpick that was lodged within the lumen with erythema and edema of the surrounding bowel wall.

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Competing interests: None

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