

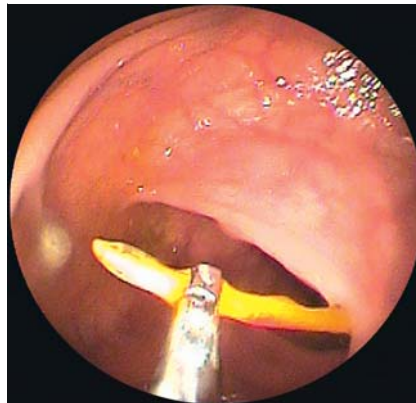
## Toothpick impaction with localized sigmoid perforation: successful double-balloon enteroscopic management

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



**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.

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.

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**Competing interests:** None

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