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Removal of an impacted apricot pit from a scarring duodenal stenosis using endoscopic retrograde cholangiopancreatography (ERCP) stone extraction technique

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Dear editor,
A 66-year-old man presented with repeated vomiting for 5 days. Initial gastroscopy showed gastric retention while computed tomography (CT) revealed a 1.8*1.1 cm, oval-shaped, high-density object in the duodenum (Fig. 1 A). Considering his past medical history of a surgical repair for duodenal ulcer perforation 20 years ago, a diagnosis of foreign body (FB) impaction causing gastric outlet obstruction was established. After gastric lavage, a second gastroscopy was performed. A brownish round FB impacted upon scarring stenoses at the junction of the 1st and 2nd part of duodenum was visualized after advancement of the scope with effort through a deformed pylorus (Fig. 1 B). Attempts to capture the FB using a polypectomy snare failed because the snare loop could not be advanced across the stenotic impaction site to allow adequate opening (Fig. 1 C). A grasper was also ineffective due to the smooth surface of the FB. Then the ERCP stone extraction technique was applied. Directed by the adjustable tip of a sphincterotome which was introduced through the same gastroscope, a guidewire passed with little resistance over the impaction site for an adequate length (Fig. 1 D). Subsequently, an extraction balloon was advanced through the guidewire with slight inflation to avoid injury to the stenotic duodenal wall and fully inflated in the distal lumen (Fig. 1 E). Gradual balloon deflation and withdrawal applied simultaneously achieved successful removal of the BF, which was identified as an apricot pit (Fig. 1 F). The patient resumed his diet of
soft food immediately after the procedure without complaint of any discomfort.

Discussion

Impacted FB resulting in gastric outlet obstruction warrants endoscopic retrieval (1). However, as demonstrated in the presenting case, a round-shaped, smooth-surfaced FB impacted on a scarring stenotic site with deformity may defy the conventional extraction methods due to limited intraluminal space and acute luminal angulations. Repeated vain attempts increase the risk of significant tissue injury or even perforation. Under the circumstances, the ERCP technique using balloon for stone retrieval provides a simple, effective and safe therapeutic option. It is noticeable that each of the devices utilized in this technique generates ‘soft touch’ with the stenotic duodenal wall and the FB, in contrast to the ‘rigid touch’ exerted by conventional extraction devices such as snares, graspers, alligator forceps, baskets, etc.

Reference


Conflict of interest

The authors declare no conflict of interest.

Informed consent
Informed consent was obtained from the patient for publication of his information and imaging.

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**Figure legend**

**Fig. 1** A Computed tomography showing an oval-shaped, high-density object in duodenum (arrow). B. A round FB impacted upon scarring stenoses of the duodenum was visualized as the scope was advanced with effort through a deformed pylorus. C. Attempts to capture the FB using a polypectomy snare failed. D. Directed by the adjustable tip of a sphincterotome, a guidewire passed with little resistance over the impaction site. E. Removal of an impacted apricot pit from a scarring duodenal
stenosis using ERCP stone extraction with balloon technique. F. The FB was extracted and identified as an apricot pit.