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Single Case

Rectal Foreign Body of Eggplant Treated Successfully by Endoscopic Transanal Removal

Hiroo Sei Toshihiko Tomita Keisuke Nakai Kumiko Nakamura
Akio Tamura Yoshio Ohda Tadayuki Oshima Hirokazu Fukui
Jiro Watari Hiroto Miwa

Division of Gastroenterology, Department of Internal Medicine, Hyogo College of Medicine, Nishinomiya, Japan

Keywords

Rectal foreign body · Eggplant · Endoscopic treatment

Abstract

Transanal rectal foreign body implies that a foreign body has been inserted transanally due to sexual orientation or other reasons and cannot be removed. Such cases require emergency measures because foreign bodies often present difficulties in manual removal or endoscopic removal and may even require surgery when peritonitis due to gastrointestinal perforation occurs. We report a patient in our hospital who had a rectal foreign body inserted into the deep part of the proctosigmoid that could be removed endoscopically. A 66-year-old man visited our hospital because of an eggplant which had been inserted into his rectum by his friend and could not be removed. Since plain abdominal computed tomography showed a foreign body thought to be an eggplant in the proctosigmoid, the foreign body was captured and removed with a snare under lower gastrointestinal endoscope guidance.

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Introduction

It has been reported that most rectal foreign bodies are inserted transanally for the purpose of aberrant sexual propensity, other than for medical purposes [1]. In many cases, such foreign bodies are hard to remove endoscopically, and patients with large foreign bodies are at high risk associated with gastrointestinal perforation. Therefore, an abdominal operation is often required in such patients. We report a patient who had an eggplant with a diameter of about 20 mm in the rectum, which was removed using a polypectomy snare successfully.

Case Presentation

A 66-year-old man presented with an eggplant which had been inserted into his rectum by his friend while the patient was drunk. On the next day, he visited a nearby hospital because the eggplant could not be removed. After a foreign body in the rectum was palpated by rectal examination, the patient was referred to our hospital. His past history showed that he was on medication for type II diabetes, dyslipidemia, and hypertension. His condition on the first hospital visit was as follows: conscious; a body temperature of 36.5°C; abdominal area flat and soft without tenderness; a mass was palpated in the abdominal region. No obvious inflammation was found in blood biochemistry findings. Plain abdominal computed tomography revealed an approximately 20-cm-long mass mainly composed of air density from the upper sigmoid to the upper rectum (Fig. 1). Remarkable intestinal deformity was observed, while there were no clear findings of perforation and ascites. The patient had abdominal pain. We tried removal of the eggplant endoscopically without anesthesia after he had been adequately informed. Since emergent lower gastrointestinal endoscopy revealed that the calyx of the eggplant in the rectosigmoid faced the anal side (Fig. 2a), the constriction of the calyx was grasped with a snare (Captivator™ II, 33 mm; Boston Scientific, Natick, MA, USA) (Fig. 2b) and was removed slowly in the left lateral decubitus position, while taking care that the snare did not fall out and the eggplant was not cut off (Fig. 2c). After the procedure, we observed the site from the sigmoid colon to the rectal mucosa and confirmed that there was no overt hemorrhage or perforation. In addition, after the removal of the eggplant, abdominal discomfort improved and his course was good.

Discussion

This article describes a case in which an eggplant, as a rectal foreign body, could be removed endoscopically using a polypectomy snare. Recently, it was reported that the incidence of rectal foreign bodies has increased and that there are many such cases involving a bottle or a glass (42.2%) [1]. Most cases in which foreign bodies are inserted transanally are associated with sexual acts [1]. Some patients may visit a hospital after a long time has passed because of their sense of shame or because they do not want to report their medical history in detail. Therefore, attention should be paid to such patients. Concerning rectal foreign bodies, such as sexual toys with smooth margins, there are several cases in which removal of foreign bodies under lower gastrointestinal endoscope guidance was tried. Howev-

er, there are a lot of cases in which foreign bodies were hard to remove endoscopically and where gastrointestinal perforation occurred and the treatment method was switched to one of abdominal operation. Generally, in the following circumstances, rectal foreign bodies are thought to be associated with a risk of gastrointestinal perforation: the time after insertion of the foreign bodies was long and the intestinal tract is extended by them, resulting in edema and circulatory disturbance; the leading part of the foreign bodies is sharp. The reasons why foreign bodies are hard to remove are the following: (1) after large foreign bodies have been inserted into the rectum, local edema occurs and convulsions of the anal sphincter occur; (2) when long foreign bodies are inserted, they are fixed on the pelvic surface of the sacrum and the anal canal; (3) the inner pressure of the rostral portion of the intestine becomes negative by the extraction of foreign bodies; and (4) depending on the shape and the materials of foreign bodies, they may be hard to grasp because of attached blood and mucosa. Given the above issues, as the basic treatment strategy for rectal foreign bodies, it is common that an abdominal operation is initially considered for patients in whom evidence of peritonitis has been obtained from the medical history, physical examination, and imaging studies. Manual removal or endoscopic removal should be considered for patients without evidence of peritonitis. Since our patient showed low evidence of inflammation by blood examination and showed no peritoneal signs of irritation, we tried removal of the eggplant endoscopically after he had been adequately informed.

To date, in 10 reports in which rectal foreign bodies were removed under endoscope guidance, foreign bodies were removed using a snare or forceps for polypectomy and using a urinary balloon (Table 1) [2–10]. In addition, different types of foreign bodies commonly include vibrators, bottles, fruits, cigar cases, etc. There is no report on an eggplant as a foreign body as in our report. Our patient showed no apparent mucosal injury after the endoscopic removal of the foreign body. However, it is necessary to observe the mucosa by endoscope again after the removal because patients may develop intestinal mucosal injury resulting in bleeding and perforation while foreign bodies are removed.

We report a patient who had an eggplant with a length of 20 cm in the rectum, which was successfully removed by grasping the calyx of the eggplant using a polypectomy snare without mucosal injury. Since the holding force of a polypectomy snare is strong and is unlikely to damage the gastrointestinal mucosa, it was thought to be useful for the removal of large foreign bodies, such as an eggplant, with a smooth surface.

Statement of Ethics

Informed consent was obtained from the patient.

Disclosure Statement

The authors of this case report have no conflicts of interest.

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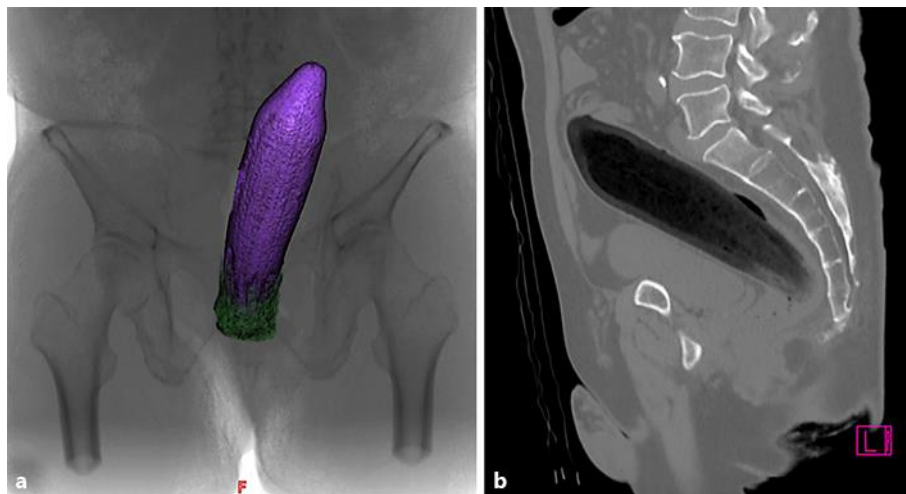


Fig. 1. Computed tomography view of the rectal foreign body of the eggplant. **a** Foreign body in the coronal section. **b** Computed tomography view showing the rectal foreign body of the eggplant in the sagittal section.



Fig. 2. Endoscopic view of the rectal foreign body of the eggplant. **a** The rectal foreign body of the eggplant was located in the deep part of the proctosigmoid. **b** The constriction of the calyx was grasped with a snare and was removed slowly. **c** Removed rectal foreign body of the eggplant.

Table 1. Ten reports of foreign bodies treated successfully by endoscopic transanal removal

Ref-erence	Foreign body	Age, years	Sex	Reason	Treatment
2	green apple	44	M	sexual stimulation	argon plasma coagulation
3	large vibrator	54	M	sexual activity	40-mm balloon dilator
4	large vibrator	33	M	not described	450-cm guidewire and a pusher from a 7-Fr ERCP biliary stent system
5	the tip of enemas	no data	F	iatrogenic accident	forceps
6	mandarin	70	M	not described	14-Fr Foley catheter
7	large light bulb	26	M	not described	long Kocher clamp
8	vibrator	42	M	not described	tenaculum forceps
8	carrot	59	M	not described	tenaculum forceps
9	cigar case	65	M	not described	esophageal overtube, polypectomy snare
10	glass bottle	40	M	self-sexual play	gastrolith forceps

ERCP, endoscopic retrograde cholangiopancreatography.