

Rectal inclusion cyst as a complication of stapled hemorrhoidopexy

A case report

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Abstract

Rationale: Stapled hemorrhoidopexy is gaining popularity for prolapsing hemorrhoids. However, like any other operation, there is always the potential risk of complications. Rectal inclusion cysts are rare complications that results from the potential space in the staple line.

Patient concerns: A 49-year-old woman was admitted to our hospital with a complaint of anorectal pain and fever complaints after stapled hemorrhoidopexy. The endoanal ultrasonography showed unclear fluid containing a cystic lesion circuit to the rectum at the staple line.

Diagnoses: The endoanal ultrasonography strongly indicates the rectal inclusion cysts.

Interventions and outcomes: A full thickness excision of the cyst was carried out along the staple line. The patient had complete recovery, with no recurrence or complaints for at least 6 months after the surgery.

Lessons: Endosonography has an important role in investigating symptomatic patients after stapled hemorrhoidopexy. Once an inclusion cyst is diagnosed, excision of the stapled line is the only choice of treatment.

Abbreviation: MRI = magnetic resonance imaging.

Keywords: hemorrhoids, rectal inclusion cyst, stapled hemorrhoidopexy

1. Introduction

Stapled hemorrhoidopexy is gaining popularity for circumferential prolapsing hemorrhoids. The advantages of the new treatment, when compared with conventional hemorrhoidectomy, were less postoperative pain with similar symptom improvement.^[1] The introduction of new surgical treatments for hemorrhoids has been accompanied by the greater incidence of reporting of serious postoperative complications. Some of the published postoperative complications after surgery for a benign condition have been severe, particularly with regard to pelvic sepsis, rectal stricture, rectal perforation, and rectovaginal fistula formation. Rectal inclusion cysts are rare complications of stapled hemorrhoidopexy, and previous reports have shown disagreement regarding the causes of inclusion cysts.^[2] This case confirmed that the cause of the cyst is that the stapling created a

potential space that was mucosally lined and consequently accumulated mucus and became symptomatic.

2. Case presentation

A 49-year-old female presented to the emergency department of our hospital with a complaint of persistent anorectal pain for 3 months and fever for 1 day. She has a history of circumferential 4th degree hemorrhoids and underwent double-purse string stapled hemorrhoidopexy 3 months ago in another department. She complained perianal discomfort and difficulties in defecation after her operation at 6 weeks ago. Magnetic resonance imaging (MRI) examination showed a rectal ring cyst. Subsequently, she underwent incision and drainage through the edge of the anus. One week ago, she complained of recurrent symptoms. The endoanal ultrasonography showed clear fluid containing a cystic lesion circuit to the rectum and the rectal wall surrounding the cyst (Fig. 1A). She underwent puncture and drainage through the vagina in that department. A day later, she suffered from aggravated anal pain and fever. Her highest body temperature was 39.8°C, and a rectal examination revealed a submucosal induration in the rectum at the staple line. Laboratory tests indicated that the white blood cell count and percentage of neutrophils were $10.40 \times 10^9/L$ and 85.2%, respectively. In addition, the endoanal ultrasonography showed unclear fluid containing a cystic lesion circuit to the rectum at the staple line (Fig. 1B).

With a preoperative diagnosis of rectal inclusion cyst concurrent infection, a full thickness excision of the cyst was carried out under sacral anesthesia. During exploration, a 30 mL abscess was found in the cyst cavity. Therefore, a circle cut by Harmonic scalpel was performed along the staple line. The cyst wall was 5 cm in length, and the rectal mucosa looked hyperemic and granular (Fig. 1C). No complications occurred postoperatively, and the patient was discharged after 7 days. The patient did not complain of relative discomfort at the 6-month follow-up. The subsequent colonoscopy confirmed that the cyst wall was rectal mucosa (Fig. 1D).

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Written informed consent was obtained from the patient for publication of this case report and accompanying images.

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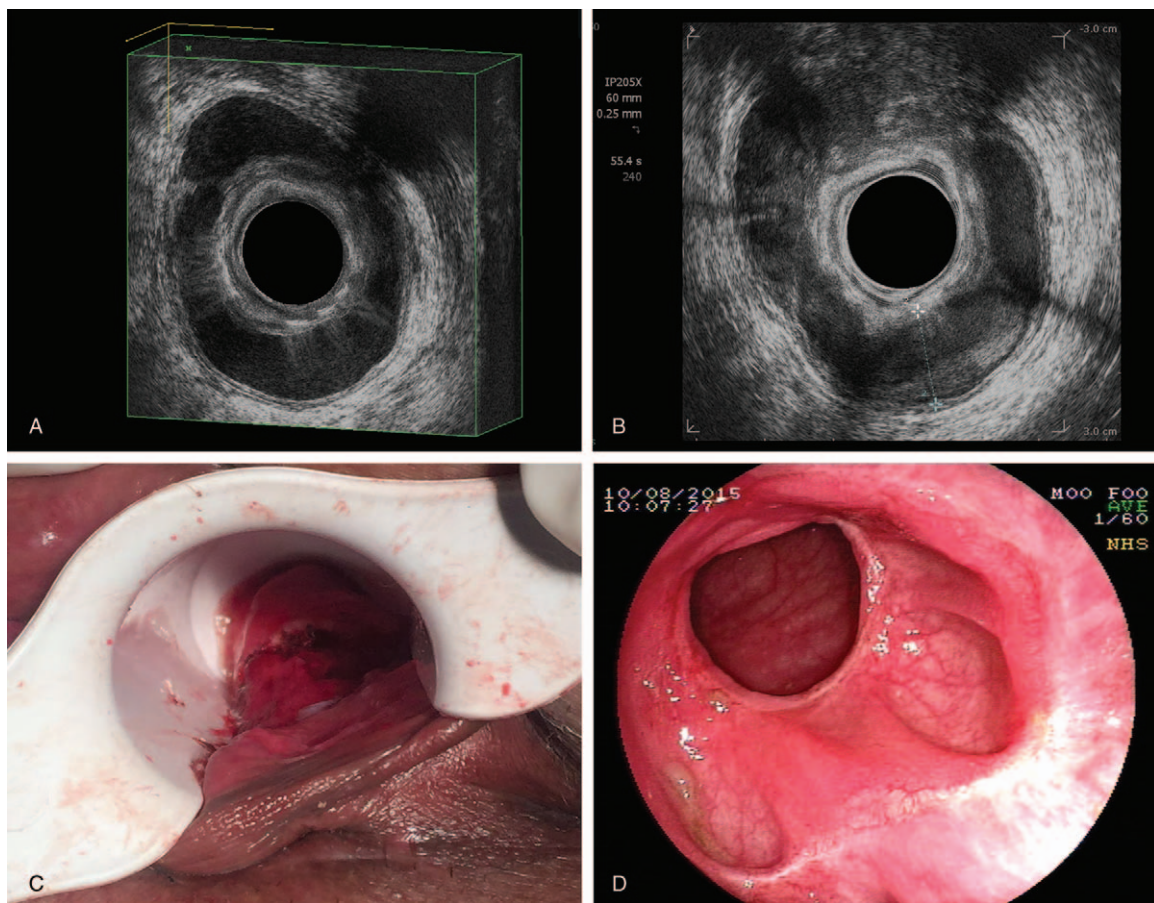


Figure 1. (A) The endoanal ultrasonography showed clear fluid containing a cystic lesion circuit to the rectum and the rectal wall surrounding the cyst. (B) The endoanal ultrasonography showed unclear fluid containing a cystic lesion after puncture and drainage through the vagina. (C) The cyst wall looks hyperemic and granular. (D) The colonoscopy showed the cyst wall was rectal mucosa.

3. Discussion

The technique of stapled hemorrhoidopexy by Longo was advocated primarily due to faster convalescence, less pain, and less time off work.^[3] Stapled hemorrhoidopexy is gaining popularity for prolapsing circumferential hemorrhoids. Reasonable evidence is now available to support the claim that stapled hemorrhoidopexy is a safe and effective technique for the treatment of prolapsing symptomatic hemorrhoids. However, like any other operation, there is always the potential risk of complications.^[4,5]

Previous reports have shown disagreement regarding the causes of inclusion cysts. Jongen et al^[6] have reported the presence of submucosal cysts at the staple line on endoanal ultrasound examination in 4 out of 654 (0.6%) patients following double-purse string stapled hemorrhoidopexy. This finding may be due to a widely spaced double-purse string, allowing convolution of the mucosa in between, laxity of the purse string at the time of staple firing, or disruption of the staple line.^[2] Raymond et al^[7] have reported the presence of submucosal cysts after single-purse string stapled hemorrhoidopexy. They surmised that the cyst occurred as a result of the hemostatic stitch; although they recognize that it may have been due to the trapping of a mucosal fold. This case confirmed that the cause of the cyst is that the stapling created a potential space that was mucosally lined and required time to accumulate mucus and become symptomatic. Management of a rectal inclusion cyst can be challenging, and there is a paucity of published work on

the management of these cases. The aspiration and drainage from the perianal region are likely to lead to recurrence as in our case; therefore, we believe that excision is the definitive treatment.

4. Conclusions

Endosonography has an important role in investigating symptomatic patients postoperatively. Once an inclusion cyst is diagnosed, conservative management, including aspiration, is usually unsuccessful, which may easily result in infection of the cyst and recurrence. Drainage of the cyst through the edge of the anus should be prohibited because it may lead to recurrence or iatrogenic extrasphincteric fistula.^[2,8] Surgical excision of the stapled line is the only choice of treatment.

Author contributions

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