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(CASE REPORT)

CECAL POLYPOID LESION REVEALING AN INVAGINATED APPENDICEAL STUMP: A CASE REPORT

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ABSTRACT

Background: Appendiceal stump invagination is a rare cause of a cecal polypoid lesion that may closely mimic neoplastic lesions on colonoscopy, particularly in patients with a history of prior polypoid lesions resections. Recognizing this entity is essential to avoid unnecessary polypectomy or surgical intervention.

Case Presentation: We report the case of a 63-year-old woman with a history of appendectomy and prior endoscopic submucosal dissection of a cecal laterally spreading tumor. During surveillance colonoscopy performed in 2026, a 15 mm non-inflammatory polypoid lesion was identified in the cecum. Given the patient's history, cecal polyp was initially suspected.

However, narrow-band imaging demonstrated a smooth mucosal surface with preserved glandular and vascular architecture, without dysplastic features, leading to the diagnosis of an invaginated appendiceal stump rather than a true neoplastic polyp.

Conclusion: This case illustrates that appendiceal stump invagination should be included in the differential diagnosis of cecal polypoid lesions, especially in patients with prior appendectomy or cecal surgery. Careful endoscopic evaluation can help differentiate this benign anatomic variant from true neoplasia and prevent inappropriate therapeutic procedures.

Keywords: Appendiceal Stump, Cecal Polyp, Narrow-Band Imaging, Case Report

1 INTRODUCTION

Appendiceal stump intussusception is an uncommon condition, often discovered incidentally during endoscopic or radiologic examinations. Its endoscopic appearance may closely resemble that of a cecal polyp or neoplasm, posing a diagnostic challenge. Awareness of this entity is particularly important in patients with prior appendectomy.

2 CASE PRESENTATION

A 63-year-old woman with a past medical history significant for appendectomy was referred for endoscopic evaluation. The indication was a personal history of three colonic polyps.

Her medical history also included a laterally spreading tumor (LST) located in the cecum, which had been resected by endoscopic submucosal dissection in 2019. Histopathological analysis at that time revealed low-grade dysplasia. A follow-up colonoscopy performed in 2021 showed no abnormalities.

Clinically, the patient was asymptomatic. She reported no abdominal pain, no bowel habit disturbances, and no other digestive symptoms.

Laboratory investigations were unremarkable, with no evidence of anemia (hemoglobin: 14 g/dL) or inflammatory syndrome.

The colonoscopy performed in 2026 revealed a 15 mm non-inflammatory polypoid lesion located in the cecum (Figure 1).

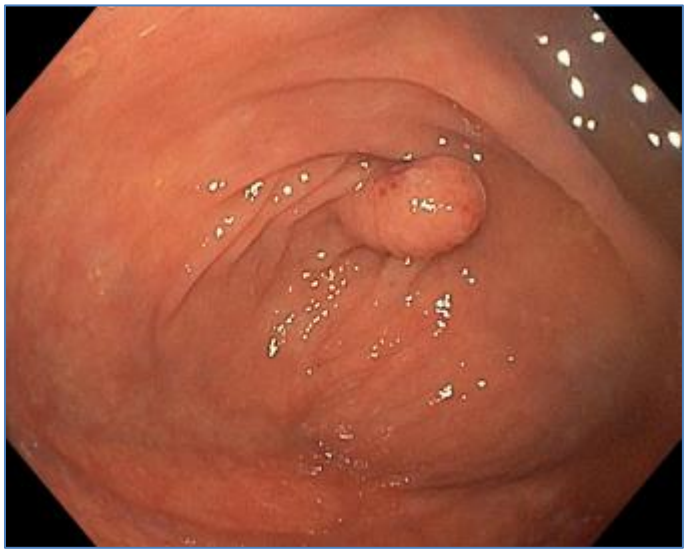


Figure 1: Colonoscopic view of appendiceal stump invagination

Given the patient's history of a previously resected cecal LST, the initial suspicion was recurrence, which could have led to the removal of the polyp. This suspicion was reinforced by the patient's appendectomy status, making anatomical interpretation more challenging.

However, narrow-band imaging (NBI) evaluation demonstrated no glandular or vascular architectural abnormalities compared to normal mucosa. The lesion appeared covered by normal mucosa without dysplastic features.

Based on the endoscopic appearance and imaging characteristics, the diagnosis of an invaginated appendiceal stump was strongly suspected.

3 DISCUSSION

Appendiceal intussusception is an uncommon form of bowel intussusception in which the appendix inverts into the cecum or into itself, often producing symptoms that can resemble appendicitis or a cecal mass.

The clinical presentation is often nonspecific and may include intermittent abdominal pain, nausea, vomiting, or gastrointestinal bleeding, which makes preoperative recognition difficult. Imaging, especially ultrasonography and computed tomography, can suggest the diagnosis, but many cases are still confirmed during surgery because the lesion may mimic neoplasm or complicated appendicitis [1].

Appendiceal intussusception is classified based on the classification system by McSwain [2]:

- Type I. The tip of the appendix forms the intussusceptum and is invaginated into the proximal appendix, which is the intussuscipiens.
- Type II. The invagination starts at some point along the length of the appendix. The intussuscipiens is the adjacent tissue.
- Type III. The invagination starts at the junction of the appendix and cecum. The cecum is the intussuscipiens.
- Type IV. This is a retrograde intussusception; the proximal appendix is invaginated into the distal appendix.
- Type V. The appendix is completely invaginated into the cecum and has progressed from type I–III.

The present case was classified as type V.

Appendiceal intussusception can occur without any underlying abnormality. Anatomical variations of the appendix and pathological conditions such as tumors or polyps, endometriosis, parasitism, cystic fibrosis, appendicoliths and foreign bodies, have all been described as possible causes [3].

Management depends on the underlying cause and the extent of involvement.

There have been several reports on surgical treatment of appendix intussusception. The laparoscopic approach is advantageous because it allows observation within the entire abdominal cavity and minimizes physical contact with possible malignancies [4-5].

In the present case, a previous appendicectomy was likely the most important contributing factor to the invagination. The residual appendiceal stump may have served at a lead point, with postoperative anatomic distortion and local inflammatory changes promoting intussusception.

4 CONCLUSION

This case highlights the importance of considering appendiceal stump invagination in the differential diagnosis of cecal polypoid lesions, particularly in patients with a history of appendectomy. Careful endoscopic evaluation, including advanced imaging techniques, is essential to establish the diagnosis and avoid inappropriate therapeutic interventions.

STATEMENTS ON COMPLIANCE WITH ETHICAL STANDARDS

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Disclosure of conflict of interest

The authors have no conflicts of interest to declare.

Statement of informed consent

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

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