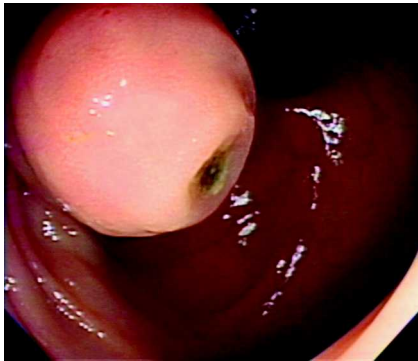
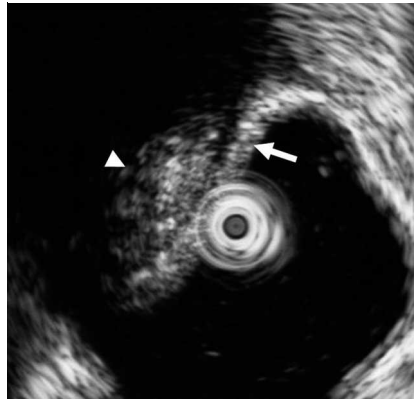


## Appendiceal intussusception due to a fecalith mimicking a submucosal tumor



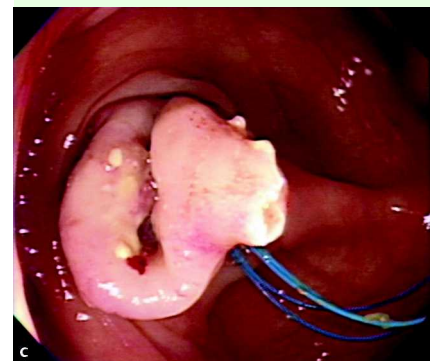
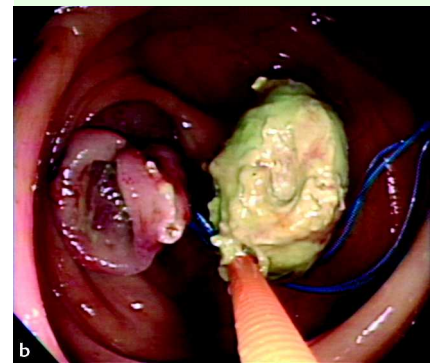
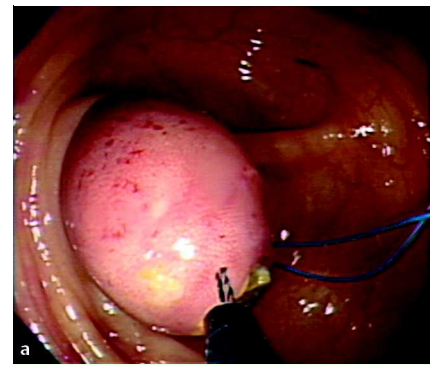
**Fig. 1** Colonoscopic view showing a polypoid lesion protruding from the appendiceal orifice with a normal-appearing mucosa and a central dimple.



**Fig. 3** Endoscopic ultrasound image showing a heterogeneous hyperechoic mass (arrowhead) within the partially invaginated appendiceal wall (arrow).



**Fig. 2** Abdominal CT image showing a mixed-attenuation material with a high-attenuation component in the lumen of the appendiceal base (arrows).



**Fig. 4** Colonoscopic findings during the procedure. **a** The tumor base is ligated with an Endoloop. Note the fixed flexible knife. **b** After incision of the overlying mucosa, a fecalith is expelled from the lesion. **c** The invaginated appendiceal base is noted in the cecum.

A 44-year-old man underwent a colonoscopic examination for a health evaluation. He had no subjective symptoms. A colonoscopy revealed a polypoid lesion 2.0 cm in diameter at the site of the appendiceal orifice. This lesion had pink-colored, normal-appearing mucosa with a smooth surface and a 2-mm central dimple (Fig. 1). When pushed by a biopsy forceps, the lesion was found to have a hard consistency and could be partially reduced into the appendiceal base. On the basis of the colonoscopic finding, a presumptive diagnosis of a submucosal tumor arising from the appendix was made. An abdominal CT scan showed the pres-

ence of mixed-attenuation material with a high-attenuation component in the lumen of the appendiceal base (Fig. 2). Endoscopic ultrasonography demonstrated a heterogeneous hyperechoic mass with focal calcification and acoustic shadowing within the partially invaginated appendiceal wall (Fig. 3). We planned an endoscopic resection of the lesion for a histopathological diagnosis. Initially, the tumor base was ligated with an Endoloop (Olympus Optical Co., Ltd., Tokyo, Japan). After incision of the overlying mucosa with a fixed flexible knife, a 1.5-cm-sized, relatively hard, earthy-yellow-colored body of impacted material was expelled

from the lesion (Fig. 4a,b). A histopathological examination confirmed the material as a fecalith. After endoscopic removal of a fecalith, the invaginated appendiceal base (intussusceptum) was clearly identified in the cecum (intussusciens) (Fig. 4c).

We presented a case of appendiceal intussusception due to a fecalith mimicking a submucosal tumor. Intussusception of the appendix is very rare and is difficult to diagnose preoperatively [1]. A reported incidence is 0.01% of surgically removed appendices [1]. The essential mechanism of intussusception of the appendix is thought to be an abnormal peristalsis caused by local irritation, including irrita-

tion by a fecalith, foreign body, mucocele, endometriosis, or neoplasm [2, 3]. Appendiceal intussusception should be suspected when a dimpling submucosal tumor is noted at the appendiceal orifice.

Endoscopy\_UCTN\_Code\_TTT\_1AQ\_2AJ

**C. K. Lee, S.-H. Lee, J.-Y. Park, T. H. Lee, I.-K. Chung, S.-H. Park, H.-S. Kim, S.-J. Kim**

Division of Gastroenterology, Department of Internal Medicine, Soonchunhyang University College of Medicine, Cheonan Hospital, Cheonan, Republic of Korea

### References

- 1 *Collins DC*. 71,000 human appendix specimens. A final report, summarizing forty years' study. *Am J Proctol* 1963; 14: 265–281
- 2 *Fink VH, Santos AL, Goldberg SL*. Intussusception of the appendix. Case reports and reviews of the literature. *Am J Gastroenterol* 1964; 42: 431–441
- 3 *Duncan JE, DeNobile JW, Sweeney WB*. Colonoscopic diagnosis of appendiceal intussusception: case report and review of the literature. *JSLs* 2005; 9: 488–490

### Bibliography

**DOI** 10.1055/s-0028-1103471  
Endoscopy 2009; 41: E25–E26  
© Georg Thieme Verlag KG Stuttgart · New York ·  
ISSN 0013-726X

### Corresponding author

**S.-H. Lee, MD**

Division of Gastroenterology  
Department of Internal Medicine  
Soonchunhyang University College of Medicine  
Cheonan Hospital  
23-20 Bongmyung-dong  
Cheonan City  
Choongnam  
Korea  
Fax: +82-41-5745762  
ygun99@hanmail.net