


IMAGES IN EMERGENCY MEDICINE

Pediatrics

Recurrent pediatric abdominal pain

Joseph Romero MD¹ | Grant S. Lipman MD² ¹ Presbyterian Hospital, Albuquerque, New Mexico, USA² Stanford Department of Emergency Medicine, Stanford University School of Medicine, Stanford, California, USA**Correspondence**

Grant S. Lipman, MD, Department of Emergency Medicine, 900 Welch Road, Suite 350, Palo Alto, CA 94304, USA.

Email: grantlip@hotmail.com

1 | PATIENT PRESENTATION

A 12-year-old boy with no past medical or surgical history presented with 2 days of right lower quadrant abdominal pain, nausea, intermittent vomiting, and no fever. There was McBurney's point tenderness and positive Rovsing's sign on exam, with a white blood cell count of 6 and C-reactive protein < 0.2. Abdominal ultrasound showed a 4 mm appendix (Figure 1) with an appendicolith (Figure 2). With persistent pain and abdominal tenderness, he was transferred for pediatric surgical evaluation. Abdominal examination and a repeat ultrasound were unchanged, with computed tomography of a non-inflamed appendix with appendicolith but no evidence of acute appendicitis (Figure 3). Further history disclosed that the patient had similar pains 6 years prior. The day after discharge, he returned to the emergency department with persistent right lower abdominal pain and tenderness. Magnetic resonance imaging was negative for acute appendicitis and he was discharged home.

2 | DISCUSSION

Appendicolithic colic is a syndrome of recurrent peristaltic abdominal pain and tenderness from partial luminal obstruction from mineralized feces in the appendix. This may clinically mimic acute appendicitis, but without fever or elevated inflammatory markers.¹ Appendicoliths are associated with high rates of perforated appendicitis.² Although emergency physicians are often concerned that the presence of an



FIGURE 1 Abdominal ultrasound (transverse view) showing a 4 mm non-inflamed appendix (brackets)

appendicolith found on imaging in the setting of right lower abdominal pain may be a precursor to acute appendicitis,¹ subsequent appendicitis has been found in only 0%–5.8% of cases when followed 3–5 years after initial presentation.^{3,4} Patients with appendicolithic colic often have multiple emergency department visits and recurrent imaging in the absence of acute appendicitis.⁵ Awareness of this syndrome may help avoid ionizing radiation, and these patients may benefit from elective appendectomy for pain relief.⁵

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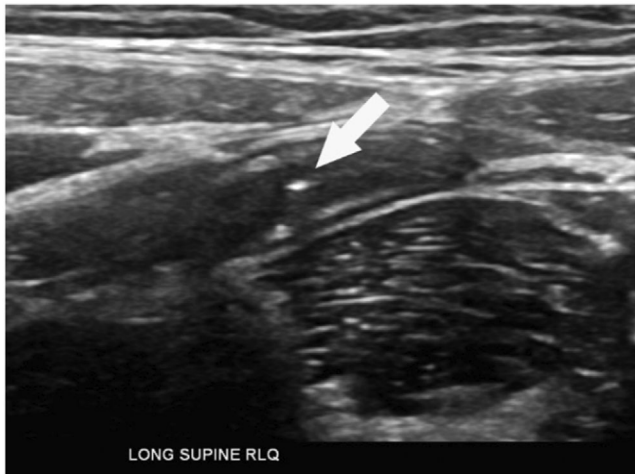


FIGURE 2 Abdominal ultrasound (longitudinal view) showing an appendicolith (arrow)



FIGURE 3 Computed tomography (sagittal view) showing a non-inflamed appendix with appendicolith (arrow)

ORCID

Grant S. Lipman MD  <https://orcid.org/0000-0002-2183-2952>

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