Infected appendiceal mucocele presenting as pyrexia of unknown origin

A mucocele of the appendix is defined as dilatation of the appendiceal lumen secondary to a variety of underlying pathological processes. Its presentation as pyrexia of unknown origin (PUO) has not been reported before. A 65-year-old man presented with a 3-month history of high-grade fever. Clinical examination and initial work-up for PUO was unremarkable. Contrast-enhanced abdominal computed tomography detected a well-defined, smooth, hypodense lesion at the base of the cecum (Fig. 1). A smooth filling defect, 1.5 cm × 1.5 cm in size, was seen on barium meal and follow through (Fig. 2). At colonoscopy, a smooth, indentable bulge (1.5 cm × 1.5 cm) was seen in the base of cecum with normal overlying mucosa (Fig. 3); the appendiceal opening was not visualized. When we took a biopsy from the lesion there was a gush of mucopurulent fluid. Culture of this fluid yielded growth of Gram-negative bacteria and anaerobes. The lesion collapsed and the appendiceal opening was then visible and found to be normal (Fig. 4). Biopsies of the lesion showed chronic inflammation. After drainage of the fluid and treatment with appropriate antibiotics the patient showed a dramatic reduction in his fever. Histopathological examination of tissue obtained from the appendectomy that was performed 2 weeks later was reported as suggestive of mucocele (Fig. 5).

An appendiceal mucocele may be detected incidentally at surgery, during imaging, or at colonoscopy. Barium studies usually reveal a sharply circumscribed, smooth, submucosal or extrinsic mass indenting the cecum without overlying ulceration [1]. An echo-poor mass with an onion-skin appearance is seen on ultrasound [2]. Computed tomography shows a hypodense lesion at the base of the cecum, indenting it on the medial side [3]. The classic colonoscopic appearance is that of the “volcano sign”, where there is a mound with a central appendiceal orifice [4]. Colonoscopy has been of limited use for appendiceal disorders. This is possibly the first time that it has had a therapeutic role. This case exemplifies the detection and management of an appendiceal mucocele presenting as a PUO.
H. Udawat¹, A. Sharma², U. Dutta¹, T. D. Yadav¹, K. Vaiphei³, S. Singh², R. Kochhar¹

¹ Department of Gastroenterology, Postgraduate Institute of Medical Education and Research, Chandigarh, India
² Department of Internal Medicine, Postgraduate Institute of Medical Education and Research, Chandigarh, India
³ Department of General Surgery, Postgraduate Institute of Medical Education and Research, Chandigarh, India
⁴ Department of Histopathology, Postgraduate Institute of Medical Education and Research, Chandigarh, India

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Corresponding author
U. Dutta, MD, DM
Department of Gastroenterology
Postgraduate Institute of Medical Education and Research
Chandigarh 160012
India
Fax: +91-172-2744401
ushad@satyam.net.in