CLINICAL VIGNETTE

Epiploic Appendagitis – An Unusual Outpatient Mimic of Diverticulitis and Appendicitis

Shih-Fan Sun, MD and Hyunah Poa, MD

Introduction

Diverticulosis is a common outpatient clinical entity that has been increasing in incidence and prevalence in the United States due to chronic constipation attributed to the "western diet." Diverticulosis is the protrusion of sacs that usually form in the sigmoid colon, causing symptoms in 20% of patients. Diverticulosis most commonly results in bleeding, but in 15% of patients these sacs can become infected and inflamed resulting in diverticulitis.[1] The classical presentation of diverticulitis includes left lower quadrant abdominal pain and fever, although diverticulitis can occur on the right side. It is customarily treated with antibiotics covering gram negative enteric rods and anaerobic bacteria for 1-2 weeks.[2] The trend to prescribe antibiotics has been challenged by recent reviews and observational studies.[3]

A close mimic of diverticulitis is a rare condition, Epiploic Appendigitis (EA).[4] It is often confused for appendicitis but results from inflammation of intestinal fat projections.[4] There are no established treatment guidelines, multiple reports of improvement with conservative management and antibiotics.[5] We report an unexpected diagnosis of epiploic appendagitis found on contrast tomography (CT) scan, in a patient who presented with abdominal pain and fever and signs typical of diverticulitis and appendicitis.

Case Report

A 66-year-old male with hypertension, chronic obstructive pulmonary disease, and prediabetes presented with one week of right lower quadrant abdominal pain. The pain started after eating peanuts and was constantly present with variable severity. There was no correlation between pain and eating. His bowel movements had been irregular for the past 2 months. He denied blood in stools, nausea, vomiting, fever or chills. He was tolerating oral intake and took naproxen without much improvement. He had similar pain 2 years ago, CT abdomen showed no appendicitis. His last colonoscopy was reported unremarkable 10 years ago.

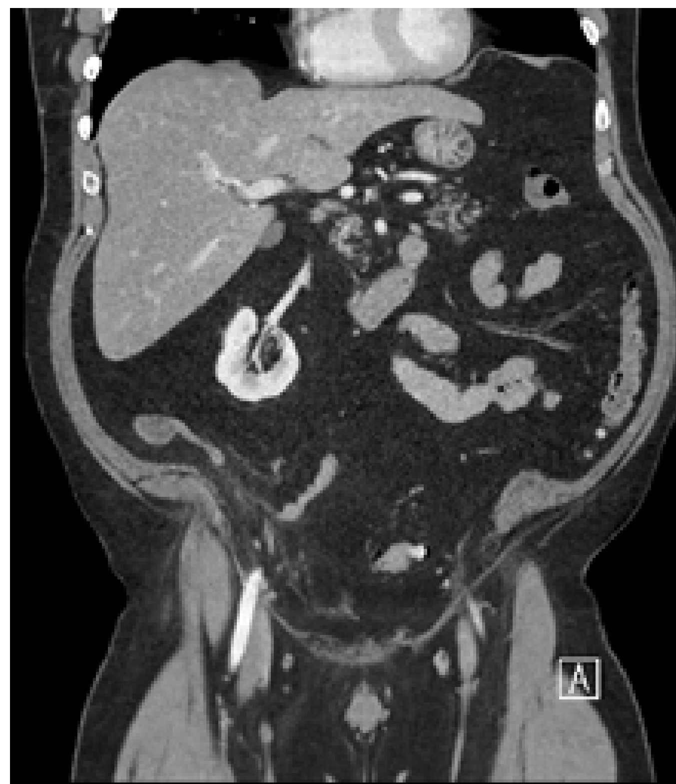
Surgical history was significant for abdominal hernia repair 25 years ago and his only chronic medication was losartan-hydrochlorothiazide.

His blood pressure was 125/94, pulse 84, temperature 37 C, respiration 14, oxygen saturation 95%.

Physical examination was notable for tenderness on right lower quadrant, without rebound tenderness, guarding or rigidity.

Patient was presumed to have diverticulitis and amoxacillin/ clavulanate 875/120 twice daily. Labs and CT abdomen/pelvis with contrast were ordered.

Labs were unremarkable and CT abdomen/pelvis showed normal appendix and evidence for acute epiploic appendagitis, likely explaining patient's right lower quadrant abdominal pain. His pain was improving and eventually resolved with non-steroidal anti-inflammatories and antibiotics.



Discussion

The management of epiploic appendagitis is controversial due to the rarity of the entity. Generally conservative treatment with analgesics including non-steroidal anti-inflammatory

(NSAIDs) is recommended in patients where these drugs are not contra indicated.[6] Other case reports and series suggest that antibiotic treatment may sometimes be necessary, though these cases are rare since most are self-limited.[5] Surgical removal of the inflamed epiploic appendage has very rarely been deemed necessary, only performed in refractory cases.[7] Our patient improved with antibiotic treatment after the condition was confirmed on CT scan. It is important to consider this self-limiting, relatively benign condition, in patients with lower quadrant abdominal pain. The literature recommends considering EA to avoid unnecessary surgery[8] as sometimes it may mimic appendicitis as well as other surgical conditions causing acute abdominal pain.

REFERENCES

1. **Elisei W, Tursi A.** Recent advances in the treatment of colonic diverticular disease and prevention of acute diverticulitis. *Ann Gastroenterol*. 2016 Jan-Mar;29(1):24-32. PMID: 26752946; PMCID: PMC4700842.
2. **Hofmann LJ, Cannon JW**. Antibiotic therapy for diverticulitis. *J Trauma Acute Care Surg*. 2013 Jun;74(6):1604-5. doi: 10.1097/TA.0b013e31829138e5. PMID: 23694895.
3. **Peery AF, Stollman N**. Antibiotics for Acute Uncomplicated Diverticulitis: Time for a Paradigm Change? *Gastroenterology*. 2015 Dec;149(7):1650-1. doi: 10.1053/j.gastro.2015.10.022. PMID: 26614249; PMCID: PMC4770908.
4. **Ammar H, Looney SC, Malani A**. Epiploic appendagitis. *Lancet*. 2009 Jun 13;373(9680):2054. doi: 10.1016/S0140-6736(09)61031-X. PMID: 19524781.
5. **Gandhi J, Gandhi N**. Epiploic appendagitis. *BMJ Case Rep*. 2009;2009:bcr01.2009.1419. doi: 10.1136/bcr.01.2009.1419. Epub 2009 Aug 25. PMID: 21866238; PMCID: PMC3027529.
6. **Patel VG, Rao A, Williams R, Srinivasan R, Fortson JK, Weaver WL**. Cecal epiploic appendagitis: a diagnostic and therapeutic dilemma. *Am Surg*. 2007 Aug;73(8):828-30. PMID: 17879696.
7. **Choi YU, Choi PW, Park YH, Kim JI, Heo TG, Park JH, Lee MS, Kim CN, Chang SH, Seo JW**. Clinical characteristics of primary epiploic appendagitis. *J Korean Soc Coloproctol*. 2011 Jun;27(3):114-21. doi: 10.3393/jksc.2011.27.3.114. Epub 2011 Jun 30. PMID: 21829765; PMCID: PMC3145881.
8. **Hasbahceci M, Erol C, Seker M**. Epiploic appendagitis: is there need for surgery to confirm diagnosis in spite of clinical and radiological findings? *World J Surg*. 2012 Feb;36(2):441-6. doi: 10.1007/s00268-011-1382-2. PMID: 22167263.