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Title

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Journal

Western Journal of Emergency Medicine: Integrating Emergency Care with Population Health, 11(1)

ISSN

1936-900X

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Publication Date

2010

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Peer reviewed

Clues to Colitis: Tracking the Prints

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Supervising Section Editor: Sean Henderson, MD

Submission history: Submitted November 24, 2009; Accepted December 7, 2009

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[West J Emerg Med. 2010; 11(1):112-113.]

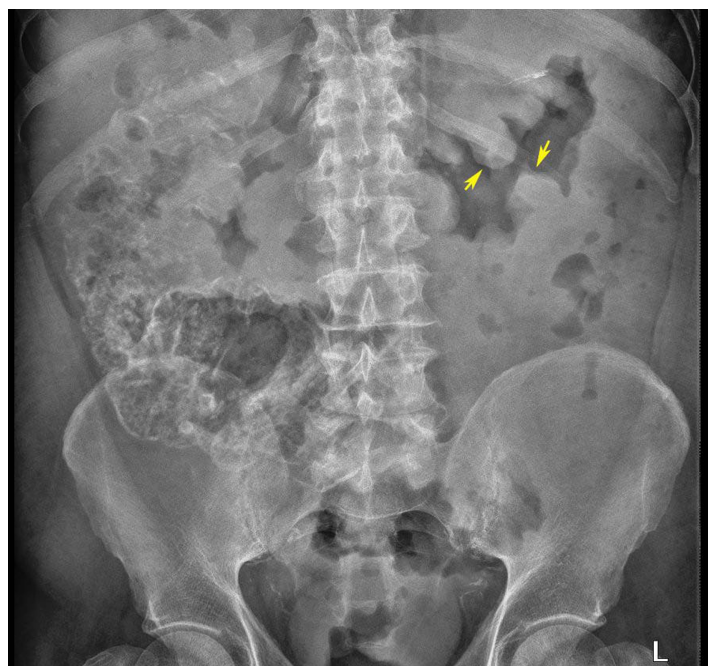


Figure 1. Plain radiograph of the abdomen showing “thumbprinting” representing significant bowel mucosal edema.

A 66-year-old male presented to the emergency department with a two-day history of profuse diarrhea. He had recently completed a 10-day course of oral cephalexin for cellulitis. He denied abdominal pain, fever or blood in the stool. Physical exam was unremarkable except for tachycardia, blood pressure of 90/60 mm Hg and mild abdominal distension. His white blood cell count was 20,000/ μ L, and metabolic panel was remarkable for serum albumin of 1.9 g/dL and potassium of 3.2 mmol/L. Abdominal radiograph showed “thumbprinting” appearance of the transverse colon (Figure 1), and computed tomographic (CT) scan of abdomen with oral contrast revealed the classical “accordion sign” (Figure 2). Enzyme immunoassay for *Clostridium difficile* toxin A and B was

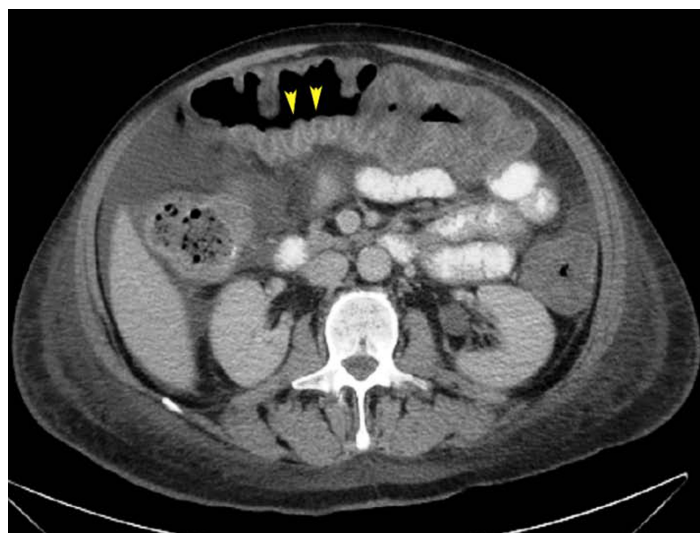


Figure 2. Computed tomography of the abdomen with oral contrast showing Accordion sign.

negative. However, diagnosis of *Clostridium difficile* colitis (CDC) was confirmed by sigmoidoscopy. Aggressive intravenous re-hydration and empirical combination therapy for CDC with oral vancomycin and intravenous metronidazole led to rapid clinical resolution.

“Thumbprint”-shaped projections on plain radiograph (Figure 1) represent thickening of the colonic haustral folds and are a sign of severe submucosal edema.¹ Classically described with ischemic colitis, it is also noted in other forms of colitis, including ulcerative and infectious colitis.¹ The “accordion sign” (Figure 2) on CT results from edematous haustral folds alternating with transverse mucosal ridges filled with oral contrast, simulating the appearance of an accordion.^{1,2} Though it was initially considered specific for CDC, it has been noted in other forms of colitis.² Radiological signs like thumbprinting, accordion sign, target sign, ascites and pericolonic stranding are valuable markers of severity in patients with CDC.^{1,3} Although none of these

signs are specific, in the appropriate context physicians can consider initiating empiric antibiotics promptly when these signs are noted. Awaiting results of diagnostic tests, which can take up to 48 hours, can potentially increase morbidity in severely ill patients.

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