Clues to Colitis: Tracking the Prints

https://escholarship.org/uc/item/4kg0b115

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

1936-900X

Cutinha, Annika H
De Nazareth, Andrew G
Alla, Venkata M
et al.

2010

Copyright 2010 by the author(s). This work is made available under the terms of a Creative Commons Attribution-NonCommercial License, available at https://creativecommons.org/licenses/by-nc/4.0/

Peer reviewed
Clues to Colitis: Tracking the Prints

Annika H. Cutinha, MD*  
Andrew G. De Nazareth, MD*  
Venkata M. Alla, MD†  
Againdra Bewtra, MD*

* Division of Internal Medicine, Creighton University, Omaha, NE  
† Division of Cardiology, Creighton University, Omaha, NE

Supervising Section Editor: Sean Henderson, MD  
Submission history: Submitted November 24, 2009; Accepted December 7, 2009  
Reprints available through open access at http://escholarship.org/uc/uciem_westjem  

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/μL, 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 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.¹² 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.¹³ Although none of these

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

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

Address for Correspondence: Andrew G DeNazareth MD, Department of Internal Medicine, Creighton University Medical Center. 601 N 30th Street, Suite 5850 Omaha, NE, 68106 Email: andrewdenazareth@creighton.edu

REFERENCES

