

Stricturing Ischemic Colitis

Published on 05.12.2000

DOI: 10.1594/EURORAD/CASE.719

ISSN: 1563-4086

Section: Abdominal imaging

Imaging Technique: Digital radiography

Case Type: Clinical Cases

Authors: P. Giusti; F. Renieri; G. Campori; S. Giusti; P. Vagli

Patient: 30 years, female

Clinical History:

Acute abdomen and diarrhea.

Imaging Findings:

A 30 year old female with a 6 years history of systemic lupus erythematoses and vasculitis presented with acute abdominal pain, diarrhea and fever. An instant enema showed a filling defect that resembled digital impressions associated with rigidity in the descending colon; these marginal indentations resembled the "thumbprinting" (Fig.1A). The colon was filled with iodinate medium to perform the instant enema. Endoscopy and biopsy were performed 2 months later and revealed a stricture localized at the same site in the descending colon; histology showed no significant changes in the mucosal or submucosal layers. Double contrast barium enema was performed 7 months after the first episode of abdominal pain and confirmed the narrowing of the descending colon associated with another stricture in the transverse colon increased in widtht after air insufflation (Fig.2A). The strictures appeared both smooth, tubular and short (less than 3 centimeters); the tubular narrowing of the descending colon was also associated to sacculaton on the mesenteric side of the colon wall (Fig.2B).

Discussion:

The term "ischemic colitis" indicates changes in the intestinal wall due to an insufficient bloody supply. Large bowel ischemia is most frequently localized in the splenic flexure, and is common in elderly patients with generalized atherosclerosis and cardiac disease (1). In young patients ischemic colitis is rare and can be produced by thrombosis or embolism frequently associated to immunologic disorders or vasculitis . Ischemic colitis encompasses a wide spectrum of pathologic and clinical findings, ranging from a mild self-limiting form to bowel infarction and perforation. Ischemic colitis presents as gangrenous when necrosis extends across all wall layers or non-gangrenous when hypoperfusion is not prolonged. Non-gangrenous ischemic colitis can also be subdivided into the transient form when there is a sufficient blood supply after temporary ischemia to allow complete restoration of the mucosal integrity, and into the stricturing form when the collateral bloody suply is just sufficient to prevent transmural gangrene, but not to allow full recovery of mucosa that develops fibrous stricture. Barium enema usually shows characteristic changes in the initial phase that permits the diagnosis and also allows the evaluation of the course of the illness when repeated some months later. The early and transient signs of ischemic colitis showed at barium enema are: thumbprinting due to submucosal hemorrhage or edema, transverse ridging produced by spasms of the colon musculature, and ulcerations. Stricuring are considered the final stage of ischemic colitis and may take place 3 weeks to 12 months after the first occurrence of ischemia; at barium enema appears as benign tubular narrowing, frequently associated to pseudodiverticular formations on the antimesenteric side of the colon wall (2).

Differential Diagnosis List: Ischemic colitis due to obliterative vasculitis.

Final Diagnosis: Ischemic colitis due to obliterative vasculitis.

References:

Balthazar E.J., Yen B.C., Gordon R.B.

Ischemic colitis: CT evaluation of 54 cases.

Radiology. 1999; 211:381-388. (PMID: [10228517](#))

Reeders JW, Rosenbusch G, Tytgat GN.

Radiological aspects of ischaemic colitis. A review.

Diagn Imaging. 1981;50(1):4-16. (PMID: [7261849](#))

Figure 1

a



Description: Instant Enema showed a filling defect in the descending colon associated with rigidity and thumbprinting. **Origin:**

Figure 2

a



Description: Double Contrast Barium Enema confirmed the stricture in the descending colon also showing another stricture in the trasverse colon. **Origin:**

b



Description: The stricture in the descending colon persists after air insufflation and appears as a tubular narrowing associated with pseudodiverticular sacculation on the antimesenteric wall. **Origin:**