



# The Brazilian Journal of INFECTIOUS DISEASES

[www.elsevier.com/locate/bjid](http://www.elsevier.com/locate/bjid)



## Clinical image

# Fecal leukocyte in the diagnosis of ulcerative colitis

Takeshi Saraya<sup>a,\*</sup>, Tomokazu Suzuki<sup>b</sup>, Hajime Goto<sup>a</sup>

<sup>a</sup> Kyorin University School of Medicine, Department of Respiratory Medicine, 6-20-2 Shinkawa, Mitaka City, Tokyo 181-8611, Japan

<sup>b</sup> Tokyo Metropolitan Cancer and Infectious Diseases Center Komagome Hospital, Department of Clinical Laboratory, 6-20-2 Shinkawa, Mitaka City, Tokyo 181-8611, Japan

## ARTICLE INFO

### Article history:

Received 18 July 2013

Accepted 31 July 2013

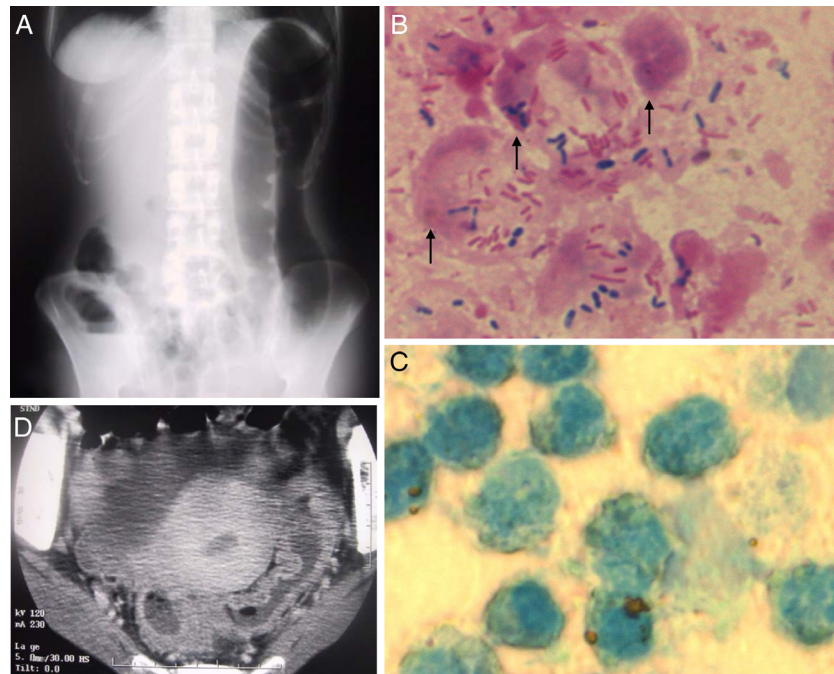
Available online 22 November 2013

A 57-year-old woman visited to our hospital because of low-grade fever, vague lower abdominal discomfort and frequent small amount of blood-stained mucus with tenesmus for three weeks. She suffered from occasional severe abdominal cramping, and felt severe tenderness in anal canal on rectal examination, suggesting of proctitis. Laboratory findings were normal except for the elevation of CRP (3 mg/dL). Supine abdominal X-ray showed narrowed colon and loss of haustration so-called “lead-pipe colon”, which was consistent with repeated mucosal inflammatory process (Fig. 1A). Immediate examination of her mucus by Gram stain (Fig. 1B, arrow) and methylene blue stain (Fig. 1C) showed no bacterial

pathogens but many fecal leukocytes, implicating of inflammatory bowel disease. Abdominal CT showed the severe mucosal thickening in the rectum, sigmoid colon (Fig. 1D) and other entire large intestine. By performing colonoscopy, she was diagnosed with total colonic type ulcerative colitis. The fecal leukocyte test is a safe, quick and easy test to explore the chronic inflammatory or infectious process in digestive tract.<sup>1,2</sup> The present case reminds us the fact that the presence of fecal leukocytes is a clinical clue to the diagnosis in patients with chronic diarrhea such as ulcerative colitis and Crohn’s disease, especially in outpatient settings.<sup>2</sup>

\* Corresponding author.

E-mail address: [sara@yd5.so-net.ne.jp](mailto:sara@yd5.so-net.ne.jp) (T. Saraya).



**Fig. 1 – (A) Supine abdominal x-p shows narrowed colon and loss of haustration; (B) Gram stain of mucus demonstrates fecal leukocytes; (C) methylene blue stain of mucus reveals many fecal leukocytes; (D) abdominal CT depict severe mucosal thickening in the rectum and sigmoid colon.**

### Conflicts of interest

The authors declare no conflicts of interest.

### REFERENCES

1. Graman PS, Robert FB. Gastrointestinal and intraabdominal infections. In: Reese and Betts': a practical approach to

infectious disease. 5th ed. Philadelphia: Lippincott Williams & Wilkins; 2003. p. 405-6.

2. Savola KL, Baron EJ, Tompkins LS, Passaro DJ. Fecal leukocyte stain has diagnostic value for outpatients but not inpatients. *J Clin Microbiol.* 2001;39:266-9.