



## LETTER TO THE EDITOR

# Post-polypectomy coagulation syndrome: A case with descending colon involvement

Polipektomi sonrası koagülasyon sendromu: İnen kolon tutulumu olan vaka

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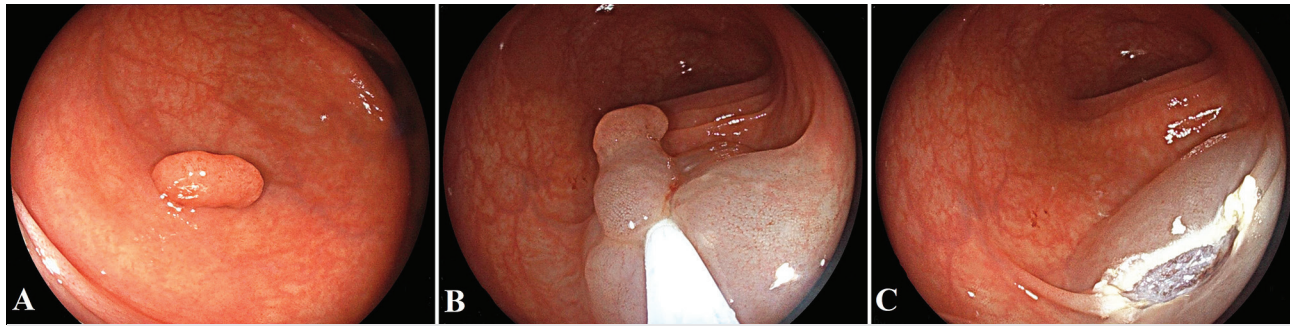
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*To the editor,*

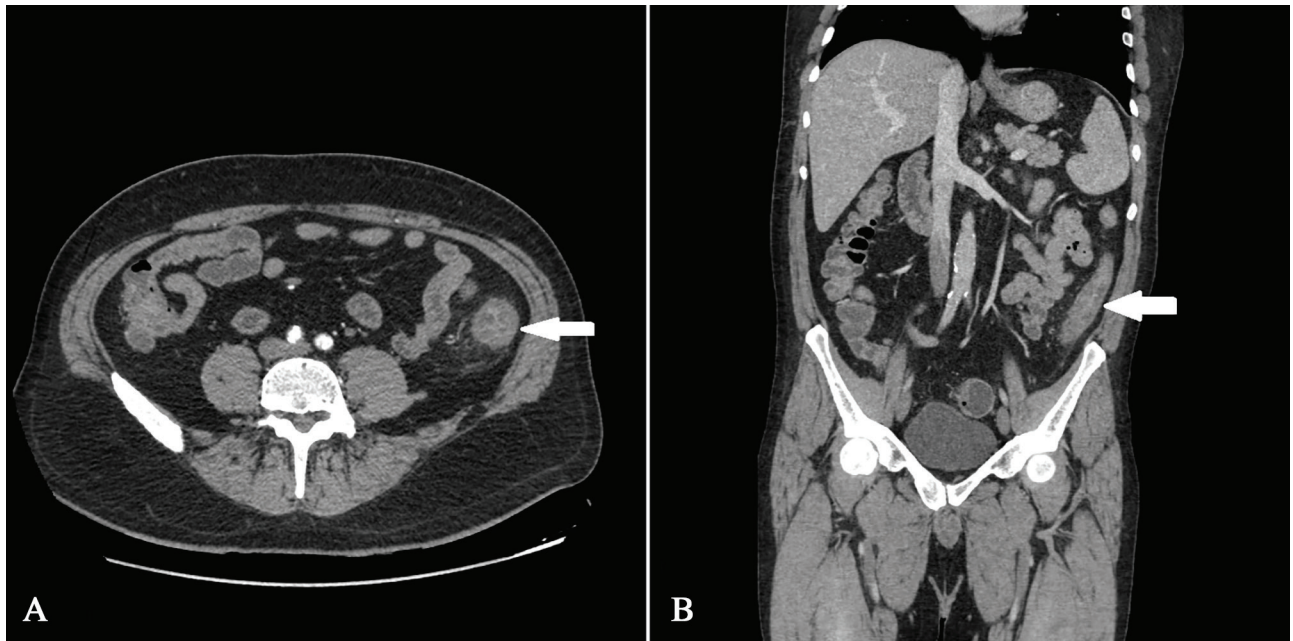
Post-polypectomy coagulation syndrome (PPCS) is an uncommon complication of endoscopic electrocoagulation-based colon polyp resections (1). Applied electric current during polypectomy passes through the mucosa and causes transmural burns and peritonitis without colonic perforation (2). Because the right side bowel wall is thinner than other parts of the colon, PPCS mostly develop after cecal and ascending colon polypectomies (3). The clinical appearance and examination findings of PPCS are similar to post-polypectomy perforation, and it is important to distinguish between the two conditions as it will affect the treatment choice (1). Here, we present a left-side localised PPCS after a polyp removal from the descending colon with a hot snare.

A 52-year-old man with a history of ischemic heart disease, who underwent colonoscopy for iron deficiency anemia investigation, was diagnosed with a sub-pedunculated polyp (Paris 0-Isp, Kudo type IV and JNET type 2A) of size 12 mm in the descending colon (Figure 1A). After the submucosal injection of mixed adrenaline solution 1:10.000 in normal saline, en block endoscopic mucosal resection (EMR) was performed using a hot snare of diameter 15 mm (Figure 1B). EMR area was clean and neither perforation nor bleeding signs were observed

at the resection site (Figure 1C). 6 hours after the colonoscopy, the patient was admitted to the emergency department with left lower abdominal pain, fever and chills. On general physical examination, the patient had a temperature of 38.5 °C with the remainder of his vital signs within normal limits. The patient had left lower quadrant tenderness without defence or rebound on his abdominal examination. Laboratory tests revealed a white blood cell count of  $9.63 \times 10^3/\mu\text{L}$  (reference range:  $4.23\text{-}9.07 \times 10^3/\mu\text{L}$ ) with 77% neutrophils (reference range: 34-67.9%), and C-reactive protein (CRP) of 117.1 mg/L (reference range: 0-5 mg/L). Computed tomography of the abdomen with intravenous contrast revealed pericolonic vascular enhancement and diffuse thickening of the distal part of the descending colon without evidence of free intraperitoneal air (Figures 2A and 2B). The patient's symptoms and all findings were compatible with PPCS. After diagnosis, the patient treated conservatively with intravenous ciprofloxacin 400 mg twice a day and intravenous metronidazole 500 mg three times a day, intravenous hydration, and clear liquid diet. His abdominal pain resolved over 24 hours. He was discharged home on a soft diet with oral antibiotic treatment (ciprofloxacin and metronidazole) at 48 hours after admission. The patient gave written consent regarding this article.



**Figure 1** Sub-pedunculated polyp in the descending colon (A), hot snare EMR after submucosal diluted adrenaline injection (B), resection area after EMR (C).



**Figure 2** White arrows indicate significant thickening of the descending colon wall and pericolic vascular enhancement without extraluminal air on abdominal CT. A. Axial view B. Coronal view.

PPCS (also known as post polypectomy syndrome, post polypectomy electrocoagulation syndrome, and transmural burn syndrome) is a rare complication of colonoscopy and occurs in 0.14% to 2% of patients who undergo endoscopic polypectomy using electrocautery (4). Well-known risk factors associated with PPCS included non-polypoidal lesions, lesion size bigger than two centimetres, lesions located in the right side of the colon, hypertension,

endothelial dysfunction, and atherosclerosis (6). A study examining 113 patients with PPCS found that the descending colon was the least likely to develop PPCS compared to other parts of the colon (7). PPCS symptoms usually start within 12 hours after colonoscopy but can also present up to 7 days after the procedure (6). Patients with PPCS mostly present with localized abdominal pain (with or without abdominal rigidity) and fever. Neutrophilic

leukocytosis and inflammatory markers elevation (CRP and procalcitonin) are expected in laboratory tests (5). Abdominopelvic computed tomography (CT) preferred diagnostic modality of choice for the diagnosis of post-polypectomy electrocoagulation syndrome and it reveals a focal thickening of the colonic wall with surrounding fat stranding without any free extraluminal air (6). Patients with PPCS are generally managed conservatively with intravenous fluids, pain control, gradual advancement of diet as tolerated, and intravenous antibiotics

against anaerobic and Gram-negative bacteria (3). Although the syndrome has been shown to resolve with conservative treatment in the majority of patients, serious complications may develop in %2.9 of PPCS patients (5). In our case, PPCS of the descending colon was treated conservatively and after 48 hours of admission, he was able to be discharged from the hospital without any symptoms.

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