



# Post-Polypectomy Syndrome (PPS): A Case Report

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## Abstract

A 51-year-old female with unremarkable medical history developed right iliac fossa pain and fever one day post-polypectomy procedure. Management involved hospital admission for monitoring, supportive care with intravenous fluids and “nothing by mouth (NPO)”, broad-spectrum intravenous antibiotics and analgesia. The case here points the critical importance of post-polypectomy syndrome (PPS) occurring after cold endoscopic mucosal resection (EMR). Clinicians should consider PPS in patients admitted with fever, abdominal pain and raised inflammatory markers within a week of polypectomy, regardless of the technique used. Prompt CT imaging is crucial for accurate diagnosis and to exclude perforation.

**Key words:** Colonoscopy; Endoscopic mucosal resection; Syndrome; Postoperative complications; Resection.

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## Introduction

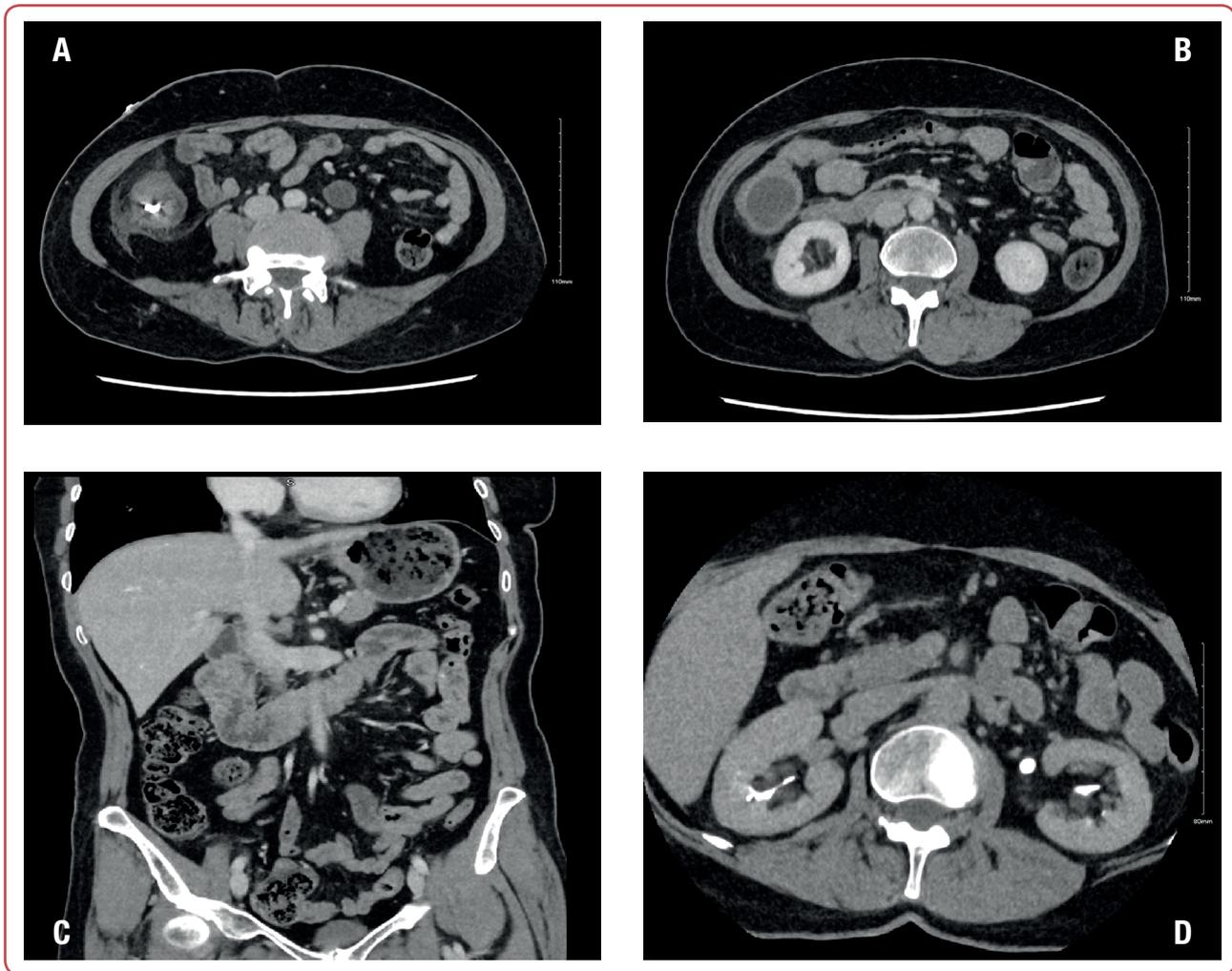
Post-polypectomy syndrome (PPS) is a recognised but infrequent complication arising from colonoscopic polypectomy and typically manifested by abdominal pain associated with fever, leucocytosis and localised inflammation (peritonitis) without bowel perforation and presents usually within five days of the procedure.<sup>1</sup> PPS

has been linked with electrocautery due to the instances of transmural inflammation from thermal injury. However, literature shows that PPS can occur after cold endoscopic mucosal resection (EMR), in rare instances, too. In presented report, a 51-year-old female underwent cold EMR leading to the development of PPS.

## Case history

A 51-year female who was otherwise healthy was referred to the endoscopy unit for evaluation of intermittent rectal bleeding. The patient had a family history of colorectal cancer as her sister was diagnosed at the age of 61. Colonoscopy revealed haemorrhoids and two colonic polyps. The first polyp was a small sessile polyp (4–6 mm) in the rectum removed via cold snare and the sec-

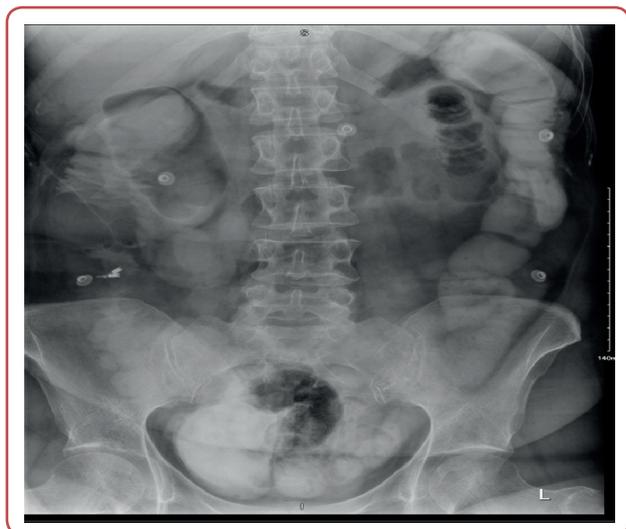
ond one was a flat, sessile, serrated polyp (< 10 mm) in the ascending colon, which was resected completely with cold EMR technique with prophylactic deployment of two clips. The procedure was uneventful. The patient remained comfortable under mild sedation with no immediate complications and she was discharged home.



**Figure 1:** (A-D): Computed tomography (CT) scan of abdomen and pelvis with contrast

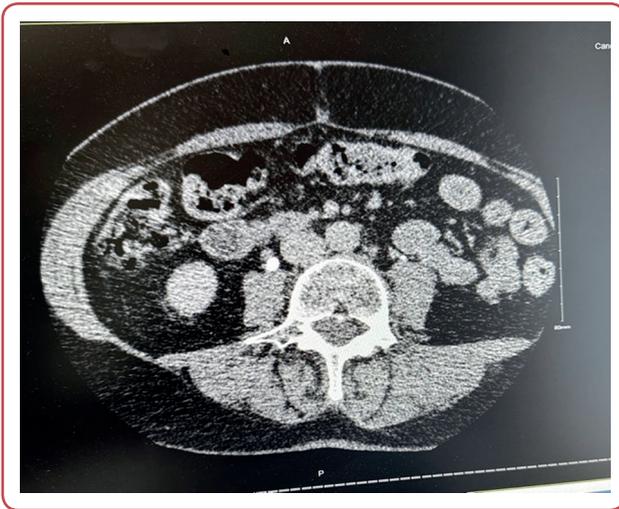
Next day, she re-presented to the emergency department with complaints of marked right iliac fossa pain and fever. She was tachycardic (heart rate of 115 bpm) and blood pressure of 105/68 mm Hg. On abdominal examination, there was marked tenderness in the right iliac fossa without peritonism and bowel sounds were normal.

The patient was initiated on intravenous (iv) fluids, analgesia and broad-spectrum antibiotics including ciprofloxacin and metronidazole. Blood cultures came back negative. Urgent computed tomography (CT) scan of abdomen was performed and revealed intussusception of the ascending colon with inflammatory changes in the ascending colon and the proximal part of transverse colon, two clips *in situ*, incidental findings of a left adrenal lesion, bilateral parapelvic cysts mimicking hydronephrosis, emphysema and hiatus hernia (Figure 1). White blood count (WBC) and C-reactive protein (CRP) started to trend upward from 9.27 to 18.86 and from 16.4 to 288.1, respectively.



**Figure 2:** Barium study

The rest of the blood results that included complete blood count, renal, liver, bone and coagulation profile were unremarkable.



**Figure 3:** Repeated computed tomography (CT) scan of abdomen in 6 weeks

Barium study showed normal contrast progression to the rectum with no evidence of obstruction and clips were visualised in the ascending colon (Figure 2).

After confirming no evidence of any active infection, adjunctive iv steroid therapy was administered for two days. Patients recovered well. Her symptoms resolved and the follow-up CT abdomen in 6 weeks (Figure 3) confirmed the resolution of the pathology.

## Discussion

PPS typically presents within 1–5 days post-polypectomy and manifested by fever, abdominal pain and raised markers of inflammation, often without signs of perforation. The incidence ranges from 0.03 % to 1.2 %.<sup>1,2</sup> Conventionally, PPS is attributed to transmural thermal injury from electrocautery—hence the alternative term post-polypectomy electrocoagulation syndrome.<sup>1,3,4</sup> Imaging often reveals focal colonic wall thickening, pericolic fat stranding and oedema without extra-luminal air.

This case is notable in that the resection was performed entirely using cold techniques—cold snare polypectomy and cold EMR. The patient subsequently developed typical clinical and radiological features of PPS. This raises the possibility that cold techniques, although considered safer, may still precipitate local inflammatory responses leading to PPS. One hypothesised

mechanism is a tissue reaction to the submucosal injection solution used during EMR, even in the absence of cautery.

Management of PPS remains supportive: iv fluids, analgesia, nil per os (NPO) and antibiotics where infection or severe inflammation is suspected and most patients recover without the need for surgical intervention.<sup>5-8</sup> A repeat CT scan performed after six weeks showed complete resolution of the previously noted bowel abnormalities.

## Conclusion

While PPS is predominantly associated with electrocautery, this case adds to the growing body of evidence that PPS can occur following cold EMR. This suggests that mechanisms other than thermal injury—such as chemical irritation or mechanical trauma—may play a role. Clinicians should consider PPS in all patients presenting with fever, abdominal pain and raised inflammatory markers within a week of polypectomy, regardless of the technique used. Prompt CT imaging is crucial for accurate diagnosis and to exclude perforation.

## Ethics

Our institution does not require ethics approval for reporting individual cases or case series. A written informed consent for anonymised patient information to be published in this article was obtained from the patient.

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We acknowledge the support of the medical staff for their role in managing this case.

## Conflicts of interest

The authors declare that there is no conflict of interest.

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## Data access

The data that support the findings of this study are available from the corresponding author upon reasonable individual request.

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