

Post-colonoscopy appendicitis: a thought-provoking unresolved entity

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To the Editor

Meaningful coincidences exist in our daily medical practice, awaiting recognition by those who possess keen observation. While post-colonoscopy appendicitis is a rare entity that is merely reported in the literature, there are many pathophysiological explanations that could make it more than just a coincidence.

At our center, we came across two documented instances of post-colonoscopy appendicitis.

The first case occurred in 1995, involving a 51-year-old male patient with no significant medical history except for obesity and hyperuricemia-related renal colics. Following a screening colonoscopy without polyp removal and without periprocedural complications, the patient experienced right-sided abdominal pain twelve hours later. Blood tests revealed elevated white blood cell count (17 000 / μ L) and C-reactive protein (59 mg/L). A subsequent CT scan showed an acute appendicitis with suspicion of a contained perforation. Surgical intervention revealed signs of perforation and acute peritonitis. Treatment included appendectomy, drainage, and antibiotics; pathology confirmed acute perforated appendicitis. A follow-up ultrasound six days later showed no collections in the right iliac fossa, and the patient was discharged fifteen days after surgery.

The second case was in 2023 in a 52-year-old male diabetic patient with previous history of kidney stones. A colonoscopy done for simply screening was performed without complications, showing normal mucosa; no biopsy nor polypectomy were performed. Few hours later, the patient noted abdominal pain localized in the hypogastric area. He presented to the emergency department where paraclinical exams showed high white blood cell count (13 000 / μ L), elevated C-reactive protein (73 mg/L) and a non-complicated acute appendicitis on CT scan. Laparoscopic appendectomy was performed, and pathology confirmed the diagnosis. Patient was discharged on day 2 without notable post-operative events.

Post-colonoscopy appendicitis was first described in the literature in 1988 (1). A recent systematic review of the literature identified from then till now 53 reported cases, with a two-fold increase between 2009 and 2019 (2). Patients presented with appendicitis occurring in the first 24-48 hours after colonoscopy (2). Post-colonoscopy appendicitis was defined by Shaw et al. as appendicitis diagnosed by standard criteria with symptoms that begin

within 72h following colonoscopy, and in the absence of any endoscopic evidence of appendicitis or caecal inflammation at the time of the initial procedure (3).

Many pathophysiological hypotheses might explain this entity: appendiceal trauma during colonoscopy leading to inflammation of the appendiceal lumen, microbioma alteration by colonic preparations, introducing a stercolith or barotrauma during insufflation, and exacerbating an appendicitis that was, until that moment, subclinical (2). However, this remains theoretical. The increasing number of performed colonoscopies and the high lifetime incidence of acute appendicitis in the general population (7-9%) (4) renders the co-existence of these two events in one patient practically coincidental. This is particularly noteworthy given that colonoscopies are frequently performed in otherwise healthy subjects, introducing a potential “healthy patient bias” (5). Contrastingly, this observation might spark a debate among professionals who routinely encounter such cases but refrain from consistent reporting, potentially due to the belief that the association is coincidental and lacks significance warranting publication or documentation.

Regardless of the authenticity of this entity, it merits inclusion in the range of potential differential diagnoses for any patient manifesting with an acute abdomen, 24-48 hours after a colonoscopy.

References

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Submission date: 03/12/2023
Acceptance date: 23/01/2024