

Appendicitis Following Colonoscopy with Appendiceal Orifice Polypectomy

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Abstract

Colonoscopy is considered the gold standard for colorectal cancer screening. Colonoscopy carries risk of perforation (0.5 per 1000 procedures), bleeding (2.6 per 1000 procedures) and death (2.9 per 100,000 procedures) (1). The incidence of appendicitis following colonoscopy is estimated at 0.038% (2). There are several proposed mechanisms for this, including elevated intraluminal pressure forcing colonic contents to obstruct the appendiceal orifice, mucosal injury near the orifice and inflammation from appendiceal intubation (2). We present the case of a 56 y/o male with acute appendicitis following full thickness biopsy at the appendiceal orifice during colonoscopy.

Key words: iatrogenic appendicitis, colonoscopy

Introduction

Colonoscopy is the gold standard for colon cancer screening and surveillance, however, as with any invasive procedure it is associated with risks. Most commonly serious risks from colonoscopy include bleeding and perforation (1). Appendicitis is a rare complication from colonoscopy. Appendicitis has been associated with cecal polypectomy near the appendiceal orifice, thought to be related to tissue edema following polypectomy (3). Here we present the case of a 56-year-old male, who developed appendicitis 3 days after undergoing full thickness biopsy with placement of endoclip near the appendiceal orifice.

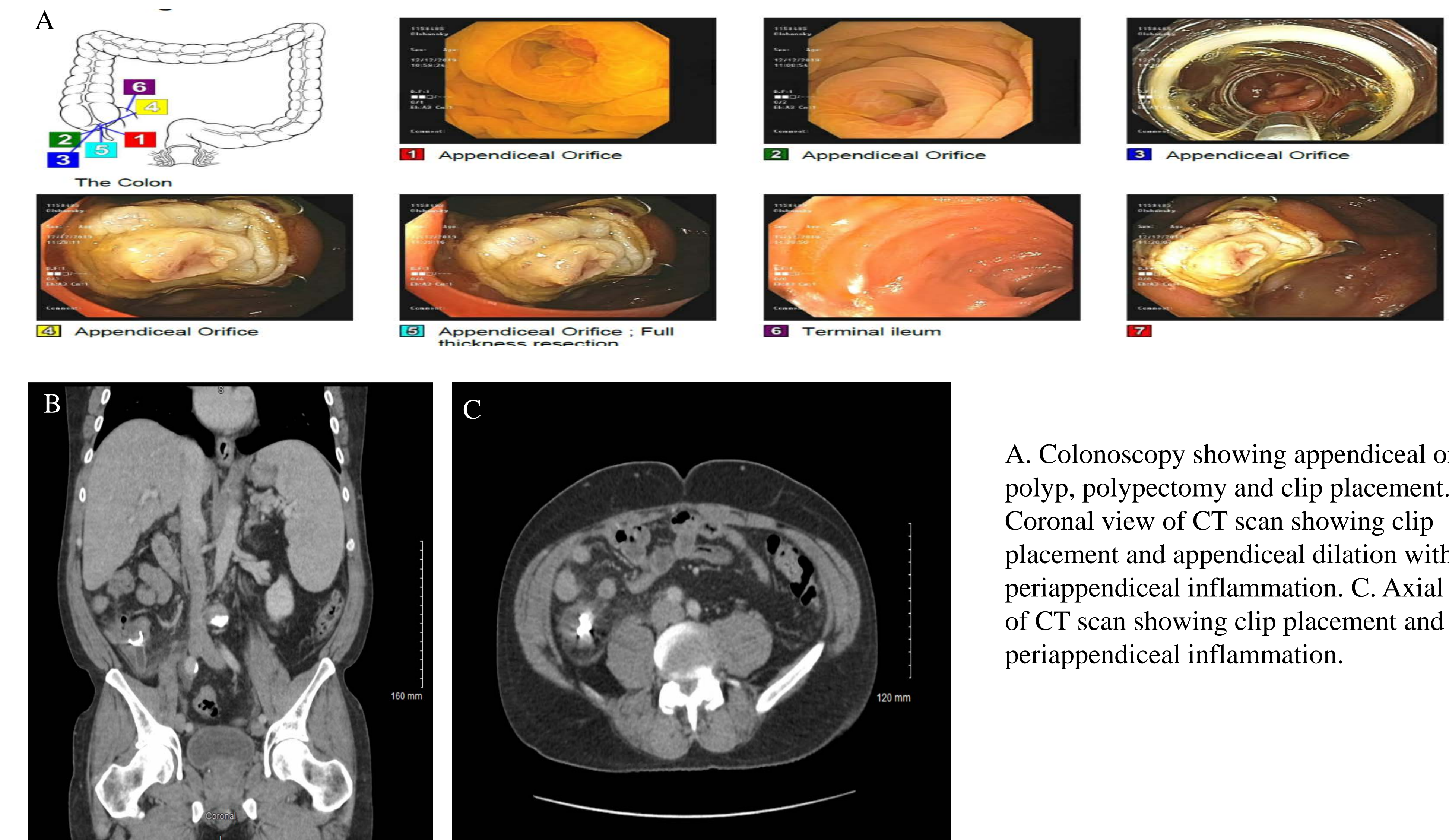
Case Report

56-year-old male with iatrogenic appendicitis. History of Child A cirrhosis, hepatitis C, thrombocytopenia, GERD, insomnia, current THC use, hyperplastic polyp and chronic back pain. History of previous esophageal banding for bleeding varices two years prior to presentation.

Patient 10 days prior to presentation patient underwent colonoscopy and EGD. Nonbleeding esophageal varices found on EGD. Colonoscopy was significant for diverticulosis and sessile, serrated polyp at appendiceal orifice. An unsuccessful attempt was made at polypectomy. Patient returned for repeat colonoscopy 7 days later. At repeat colonoscopy full thickness resection of an 8mm appendiceal orifice polyp and a 2 mm ascending colon polyp were removed. Full thickness retrieval device was used to resect the appendiceal orifice polyp. On pathology the appendiceal orifice polyp pathology was sessile, serrated adenoma, free of neoplasia. A second polyp was removed from the ascending colon and found to be an inflammatory polyp on pathology.

Three days following his colonoscopy patient presented to the emergency department with right lower quadrant pain and associated nausea. At time of his presentation patient was thrombocytopenic with platelet count of 62, 000. CT scan was consistent with appendicitis. Patient was given platelets and taken to the operating room.

Laparoscopic appendectomy was attempted. The appendix, as well the portion of the cecum containing the endoscopic clip were resected endoscopically. However, due to friability of tissues and area of perforated necrosis on posterior aspect of the cecum along the staple line procedure was converted to open. Due to proximity of ileocecal valve the area of necrosis was unable to be resected safely without performing a formal cecal resection with ileocolic anastomosis. The staple lines were over-sewn in a Lembert fashion. The surgical pathology was consistent with acute appendicitis, medical device and acute cecum colitis. The patient recovered from surgery well, with an unremarkable hospital course.



A. Colonoscopy showing appendiceal orifice polyp, polypectomy and clip placement. B. Coronal view of CT scan showing clip placement and appendiceal dilation with periappendiceal inflammation. C. Axial view of CT scan showing clip placement and periappendiceal inflammation.

Discussion

To our knowledge there are very few reported cases of post colonoscopy appendicitis. A review of the literature found only 27 reports of post coloscopy appendicitis (4). In review of these cases appendicitis symptoms onset between a few hours post colonoscopy to a ten days (4). We could find no case report of appendicitis following appendiceal orifice polypectomy. In the case of our patient appendicitis symptoms began 3 days following his polypectomy. Laparoscopic appendectomy was attempted, however, given endoclip location and proximity to ileocecal valve, could not safely be completed. Patient required open appendectomy. In this case appendicitis was likely due to location of polypectomy and endoclip. With polyp located at the appendiceal orifice, as in this patent, endoscopic appendectomy may have been an alternative treatment option, as described by Liu, et al. (5).

References

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