

*Letter to the Editor*

## Successful endoscopic clipping of iatrogenic postpolypectomy colonic perforation

N. Eleftheriadis, D. Eleftheriadis

Dear Sir, Successful endoscopic clipping of large iatrogenic colonic perforation have been recently reported in the literature.<sup>1</sup> We would like further to report our experience from the successful endoscopic clipping of a small colonic perforation, after polypectomy of a 0.8cm sessile polyp at a fold of hepatic flexure (Figure A), in an 80-year-old male who came for screening colonoscopy. The polyp was snared in one fashion, after spasmolytic IV administration for bowel rest and submucosal injection of adrenaline solution 1/10000 to raise the lesion.

Initially perforation was missed and only during a second look after completion of colonoscopy, a 0.5 cm linear perforation was unexpectedly revealed (Figure B). One metallic clip was placed endoscopically for successful closure of the perforation (Figure C). The patient was admitted for observation, bowel rest and intravenous antibiotics. A surgical consultation was daily obtained. He remained asymptomatic with normal white blood cell count and C-reactive protein and was discharged on hospital day three. Histology showed the lesion to be an adenocarcinoma with infiltration up to submucosa (T1c N0 M0). Abdominal computed tomography and tumor markers were normal. During follow up six months later the patient is asymptomatic.

An interesting finding of this case is that even a small sessile polyp on a colonic fold could be a cancer, while even an otherwise easy polypectomy, could lead to a small perforation, which if remained undiagnosed could lead to severe complications. Furthermore, spasmolytics and total bowel rest before polypectomy were not sufficient to pre-

*Private Clinic Kyanos Stavros, Aristotles' University Thessaloniki, Greece*

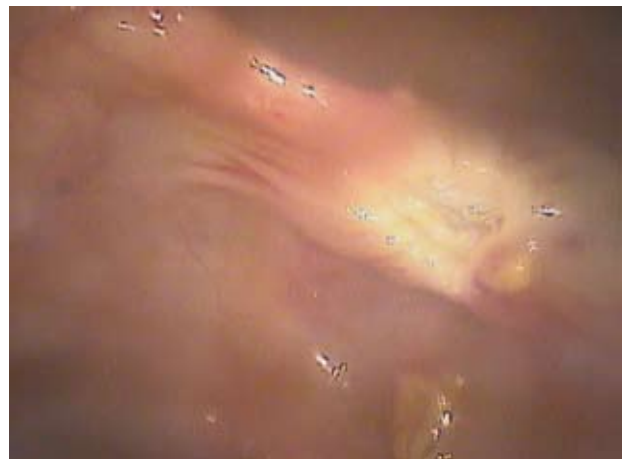
**Author for correspondence:**

N. Eleftheriadis, Gastroenterologist, Perdika 13, Ptolemaida PC 50200, Greece, Tel: 0030 2463022106, Mobile: 0030697778832, FAX: 00302463055546

vent perforation. NBI colonoscopy and other new technologies may play an important role in revealing small sessile malignant colonic lesions before polypectomy,<sup>2</sup> but further studies are necessary.



**Figure A.** A 0.8cm sessile polyp at a fold of hepatic flexure.



**Figure B.** A 0.5 cm linear perforation after polypectomy.



**Figure C.** Successful closure of the perforation with one metallic clip.

While large perforations are easy to recognize, small linear perforations need a skilled endoscopist, high suspicion and second look in doubtful cases, especially after sessile polypectomy on a fold. Early recognition is essential for an optimal outcome.

Many other questions arise from this case concerning antibiotic therapy, follow-up and definitive management of iatrogenic colonic perforations. Moreover, taking into account the controversy in the literature regarding the op-

timal therapy of malignant colorectal adenomas<sup>3</sup> another difficult question arises from the present case: Is endoscopic polypectomy an adequate therapy for this malignant sessile polyp infiltrating the submucosa or is further surgical management necessary to prevent late recurrence?

In conclusion, we consider endoscopic clipping safe and effective treatment of colonic postpolypectomy perforation. However, good bowel preparation, immediate diagnosis and a skilled endoscopist is required to prevent fecal peritonitis before perforation closure. Furthermore, polypectomy even of a small sessile polyp may lead to small linear perforation on the ground of underlying malignancy. New technologies are necessary to better differentiate a sessile polyp before polypectomy, in order to prevent iatrogenic perforation.

## REFERENCES

1. Bain AJ, Krinsky ML. Repair of an Iatrogenic colonic perforation with endoclips. *Image of the month. Clin Gastroenterol Hepatol* 2009; 7(7): xxviii.
2. Emura F, Saito Y, Ikematsu H. Narrow-band imaging optical chromocolonoscopy: advantages and limitations. *World J Gastroenterol.* 2008; 14:4867-4872.
3. Seitz U, Bohnacker S, Seewald S, Thonke F, Brand B, Broitigam T, Soehendra N. Is endoscopic polypectomy an adequate therapy for malignant colorectal adenomas? Presentation of 114 patients and review of the literature. *Dis Colon Rectum* 2004; 47:1789-1796; discussion 1796-1797.