Case Reports

Granuloma of the appendiceal stump An unusual cause of right hemicolectomy

Michael C. Safioleas, MD, PhD, Michael C. Stamatakos, MD, Ahmad I. Diab, MD, Othon P. Michael, MD, Konstantinos M. Safioleas, MD, George C. Liapis, MD.

ABSTRACT

Granuloma of the appendiceal stump is not a common surgical entity. However, hemorrhage which may lead to right hemicolectomy is rare in fact. We report this case, in order to avoid this kind of overtherapy.

Saudi Med J 2006; Vol. 27 (8): 1230-1231

Right hemicolectomy is a common surgical procedure in digestive surgery as it is considered the operation of choice in cases of malignant tumors of the cecum. Rarely, right hemicolectomy is used to encounter surgically the intussusceptions of the ileocecal valve. But, right hemicolectomy due to granuloma of the appendiceal stump is an unexpected rare case, which merits to be reported, as it is not the surgical method which should be chosen.

Case Report. A 71-year-old man was admitted with a history of sudden mild pain in the right iliac fossa, and stools of dark color. In admission, the physical examination revealed tenderness in the right iliac fossa only. The patient in his medical history reported appendicectomy 3 years before. On digital rectal examination, the only finding was blood on the examining finger, dark, and venous in character. From the hematological tests, a decreased hematocrit was noted (31%). Colonoscopy revealed an ulcerated mass in the cecum below the ileocecal valve, with oval shape measuring 2 x 2.5 cm, with

active hemorrhage. After that, urgent surgery was indicated. Hematocrit was decreased to 28% during the following 2 hours. At operation, a cecal mass was palpated, and the whole colon was full of blood from the cecum onwards. According to a tentative diagnosis of a tumor (adenoma) of the cecum, a right hemicolectomy was performed. The postoperative course was uneventful. The histological examination was a real surprise as the diagnosis proved granuloma of the appendiceal stump (Figure 1).

Discussion. We present a case of right hemicolectomy due to a hemorrhagic granuloma of the appendiceal stump. The granuloma had been potentially developed on the suture thread, and subsequent ulceration resulted in hemorrhage. Cecal tumors are not common cases of serious intestinal hemorrhage. Most often enteric angiodysplasia, even of the appendix, Crohn's disease, diverticulosis of the cecum, involve such a condition. Less commonly massive bleeding from the cecum may result due to Behcet's disease, intramural hematoma of cecum,

From the Department of General Surgery (M. Safioleas, Stamatakos, Diab, K. Safioleas), Medical School, Department of Surgery (Michael), and the Department of Pathology (Liapis), Medical School, University of Athens, Laiko General Hospital, Athens, *Greece*.

Received 16th November 2005. Accepted for publication in final form 15th March 2006.

Address correspondence and reprint request to: Prof. Michael C. Safioleas, Professor of Surgery, University of Athens, Laiko General Hospital, Valaoritou 5, Ano Glyfada, Postal Code: 16674, Athens, *Greece*. Tel. +30 (1) 6944427027. Fax. +30 (1) 2105534193. E-mail: diabahmad1@yahoo.gr

1230

02granuloma20051907.indd 1230 7/17/06 4:32:49 PM

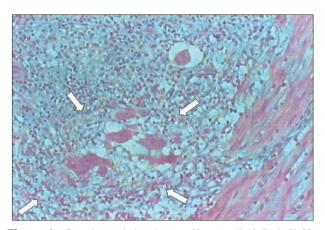


Figure 1 - Granuloma within subserosa. Hematoxylin & Eosin X100

cecal varicosities, hemangioma or benign ulceration of the cecum.⁴⁻⁷ However, hemorrhage having its origin in a granuloma of the appendiceal stump, after removal of the appendix is exceptional.

In the literature are reported 2 cases of serious hemorrhage due to granuloma of the appendiceal stump treated by endocecal submucous resection. ^{8,9} In another case, the lesion was removed endoscopically. ¹⁰ In our reported case there was an over therapy in fact. The possibility of granuloma of the appendiceal stump did not play a role in our differential diagnosis. Perhaps the urgent nature of the condition (active hemorrhage), the age of the patient, his anemia, and the endoscopic findings, drove us to perform a right hemicolectomy in emergency, whereas we should have operated the cecum before. Patient's recovery was fortunately complete, and we are more experienced now, as experience is the name that we are giving to our mistakes, provided that, we recognize them.

In conclusion, granuloma of the appendiceal stump must be differentially diagnosed from tumors of the cecum, in order to avoid major and useless operations; endoscopy surgeons must always have in mind this rare entity.

References

- 1 Kyokane T, Akita Y, Katayama M, Kitagawa Y, Sato T, Shichino S, et al. Angiodysplasia of the appendix. Am J Gastroenterol 2001; 96: 242-244 [PMID: 11197261].
- 2 Robert JR, Sachar DB, Greenstein AJ. Severe gastrointestinal hemorrhage in Crohn's disease. *Ann Surg* 1991; 213: 207-211 [PMID: 1998401].
- 3 Sierro C, Steiner A, Ruttimann S. Recurrent severe lower gastrointestinal hemorrhage. Acute recurrent diverticulum hemorrhage in the cecum. *Schweiz Rundsch Med Prax* 2000; 89: 925-928 [PMID: 10859982].
- 4 Blundell CR, Earnest DL. Idiopathic cecal ulcer. Diagnosis by colonoscopy followed by nonoperative management. *Dig Dis Sci* 1980; 25: 494-503 [PMID: 6967006].
- 5. Brodey PA, Hill RP, Baron S. Benign ulceration of the cecum. *Radiology* 1977; 122: 323-327 [PMID: 834869].
- Hashmonai M, Kopelman D, Engel A, Assalia A. Acute gastrointestinal bleeding from caecal varicosities. *Eur J Surg* 2000; 166: 186-188 [PMID: 10724502].
- Rogers HG, Adler F. Hemangiomas of the cecum. Colonoscopic diagnosis and therapy. *Gastroenterology* 1976; 71: 1079-1082 [PMID: 1086811].
- Martinez Ubieto F, Lanas Arbeloa A, Ortego Retana J, Ortiz Solorzano J, Aguilella Diago V, Martinez Diez M, et al. Granuloma of the appendiceal stump: an unusual cause of low intestinal hemorrhage. *Br J Surg* 1985; 72: 51 [PMID: 3871345].
- Quaglia M, Baldi A. A case of intestinal hemorrhage caused by post-appendectomy granuloma of the cecum. *Minerva Chir* 1975; 30: 54-57 [PMID: 1090859].
- Maas LC, Gelzayd EA, Uppaputhangkule V, Silberberg B. Endoscopic removal of an ulcerated appendiceal stump. *JAMA* 1978; 240: 248-249 [PMID: 660853].

02granuloma20051907.indd 1231 7/17/06 4:32:49 PM