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Case report

Segmental colitis associated with diverticulosis: a clinical entity to know and to look for

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Abstract. Patients with diverticulosis may develop inflammatory manifestations with segmentary involvement of the colon (segmental colitis associated with diverticulosis, SCAD), an often underestimated clinical condition. We observed the case of a 59 year-old man who presented with abdominal pain, change in bowel habit and hematochezia. Endoscopic and histological evaluation showed features suggestive for SCAD. Medical therapy has been confirmed successful in this patient. (www.actabiomedica.it)

Key words: segmental colitis, diverticulosis

Introduction

Patients with diverticular disease may develop a segmental colitis most commonly in the sigmoid colon. The endoscopic and histological features are heterogeneous, ranging from mild inflammatory changes to chronic active inflammation. Colitis associated with diverticulosis is a clinical entity often underdiagnosed. The overlapping with inflammatory bowel disease, ischemic, infectious and NSAID related colitis makes diagnosis difficult. We report a case of a middle-aged man with segmental colitis associated with diverticulosis, with a challenging differential diagnosis and who successfully responded to medical therapy with mesalazine.

Case report

A 59 year-old Caucasian man was referred by the General Practitioner to the Gastroenterology Unit of our Hospital for the persistence of abdominal pain, prevalent in the lower part of the abdomen, characterized by moderate-severe intensity, not relieved by evacuation. The symptom was associated with a change in bowel habit, with more frequent bowel movements and occasionally hematochezia. The patient referred that symptoms have been present at home for a few weeks and they were making worse. In the patient's clinical history moderate hypertension was reported and an ACE-inhibitor was assumed discontinuously. No antinflammatory drugs nor antibiotics were assumed in the previous two months. Smoking was stopped six months before. A familiar history of gastrointestinal diseases was excluded. At the examination, a body mass index of 26 was measured (with no recent loss of body weight) and the abdomen showed a diffuse tenderness. Recent blood exams revealed blood count within normal limits, as well as LDH, CPK, electrolytes levels, renal and liver functions; a slight increase in reactive C protein level was detected. Stool samples have already been sent for coltural exams, Clostridium difficile toxin and parasitic search, which turned out to be all negative. Five years before the patient underwent a barium enema because of a positive fecal occult blood test and diverticulosis of the left colon was observed. Because of the clinical suspicion of an acute

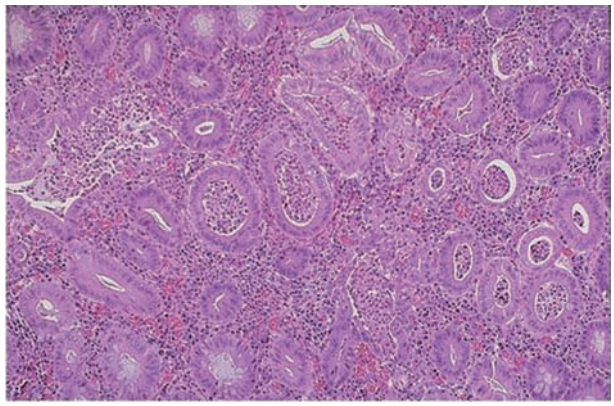

Figure 1. The histopathological pattern shows an acute-on chronic inflammation and the presence of crypt abscesses (Haematoxylin and Eosin)

diverticulitis, a computerized tomographic scan was firstly requested. At the level of the left colon a thickened wall was detected, without contrast enhancement, while no signs of perforation nor fluid collection were present. The patient was then asked to undergo a colonoscopy: starting at 25 cm from the anal margin and for an extension of 50 cm, the mucosa presented with hyperemia, scattered erosions and loss of submucosa vascular pattern. In this segment, presence of diverticula was confirmed and biopsies were taken from the surrounding affected mucosa. The cecum was explored and no lesions were observed proximally to the sigmoid colon. Noteworthy, among the endoscopic features, was the relative sparing of diverticular orifices from inflammatory lesions. The histopathological evaluation with haematoxylin and eosin staining showed signs of active inflammation with micro-abscesses in the crypt epithelium and goblet cell depletion. In consideration of the endoscopic distribution of the inflammatory lesions and of the histological features, a diagnosis of segmental colitis associated with diverticulosis (SCAD) was made and the patient, who was still symptomatic, was prescribed with oral mesalazine 2.4 g/day for 6 weeks, with remission of symptoms. After giving 1.6 g/day of drug in the subsequent 4 weeks, the drug was withdrawn and the patient remained asymptomatic without therapy for the whole follow up period of 12 months.

Discussion

Segmental colitis associated with diverticulosis affects the sigmoid colon harboring diverticula and it is characterized by endoscopic and histologic evidence of inflammation. It is relatively rare: diagnosis of SCAD occurs every 300-400 colonoscopies (1) and prevalence in patients affected by diverticulosis is between 0.3% and 1.3% with male predominance (2). It has been variably classified as a complication of diverticulosis or as a distinct inflammatory bowel disease (3). Little is known about the pathogenesis of this clinical entity and the roles of infectious, ischemic, traumatic or immunological factors have been taken into consideration.

This case confirms that SCAD is a challenging diagnosis among the inflammatory diseases of the colon: our patient showed typical clinical presentation (one third of patients presents more than one symptom among diarrhea, abdominal pain and rectal bleeding) (3, 4). Risk factors for ischemic disease were present and the age of the patient was compatible with the second peak of onset of inflammatory bowel disease (IBD).

The endoscopic appearance was suggestive for a type B SCAD, also defined as "mild to moderate ulcerative colitis-like"; rectal and diverticular orifices sparing from inflammation was useful for differential diagnosis from ulcerative colitis IBD and diverticulitis, respectively.

Evidence at computed tomography (CT) of colonic thickening is another frequent matter of debate: a recent retrospective study evaluated the findings at colonoscopies in patients with abdominal pain referred for endoscopy after a positive CT. Up to one quarter of the patients showed no mucosal abnormality. The most frequent diagnosis were ischemic and infectious colitis, IBD, adenocarcinoma (5).

SCAD is considered to have a benign course and patients usually respond well to mesalazine (reported success rate up to 80%, but with some limitations of the studies, such as lack of stratification according to severity) (6); in a minority of subjects steroids or surgery are necessary. Literature data are limited since most studies are retrospective (7). The two follow-up studies available (6, 8) which evaluated clinical out-

come respectively after a follow up period of 7 and 5 years, observed a recurrence rate of 33-37%: in the latter study, five out of the nine patients with recurrence resolved after a new course of mesalazine (6). No data are available regarding the better management of maintenance therapy with mesalazine.

Antibiotics (Ciprofloxacine, Metronidazole) have been described to be useful for symptomatic patients in case reports. Combination therapy with oral beclomethasone dipropionate plus the probiotic preparation VSL#3 improved symptoms and histology in an open label trial involving 12 patients (9).

There is little evidence to suggest the optimal treatment and the clinical approach is actually based mainly on clinical experience and indirect evidence.

Affected patients appear to be at increased risk for complications related to diverticulosis (such as stricture) that may eventually require a surgical approach. Colon adenomas and cancers that have been described in these series of patients developed at sites different from that involved in the inflammatory disease (6, 10).

An high index of suspicion is necessary to make diagnosis of SCAD. Prospective randomized controlled trials are advocated to assess the best medical treatment of this clinical entity.

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