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CASE REPORT

Severe ischemic colitis following Neuroleptics : A Case Report

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ABSTRACT
Ischemic colitis (IC) is a rare adverse effect of antipsychotic medications and is most commonly associated with the phenothiazine class of neuroleptics. Different cases reported in patients without other obvious risk factors led to the link between taking neuroleptics and acute ischemic colitis. The severe form is acute necrotizing colitis. This entity is characterized by sudden onset of abdominal pain and bloody diarrhea, progressing rapidly to produce severe illness with general peritonitis and shock.
We report a case of a 26 years old Moroccan man, treated for four years for chronic psychosis, admitted to the emergency for abdominal pain and diarrhea. Clinical examination showed a conscious patient, tachycardia at 120 beats/min, febrile to 38.5 ° C, with generalized abdominal defense. Laboratory tests revealed: GB 33400, CRP 290 mg/l, abdominal tomography revealed colonic distension. The patient was prepared and admitted to the operating room. During the intervention, a colonoscopy was performed and shown ulcerated lesions with a purplish background without interval healthy mucosa. A subtotal colectomy with ileostomy and sigmoidostomy were performed. The histological examination of the surgical specimen showed superficial and extended ulcerations without interval healthy mucosa. Thus, no factors for IC were detected by appropriate workup other than the long-time use of neuroleptics. The restoration of continuity by ileorectal anastomosis was achieved two months later with a good clinical outcome, and the patient was recommended for psychiatry to reevaluate his antipsychotic regimen given the association with IC.
Our case supports that neuroleptics can promote IC in patients under antipsychotic medications. It should alert physicians who prescribe neuroleptics and colorectal surgeons to the possibility of intestinal ischemia. Although the clinical presentation is non-specific, abdominal pain and distension should be headed, and endoscopy carried out. A better knowledge of this condition should promote earlier diagnosis and improve management.

KEYWORDS: Ischemic Colitis; Neuroleptics; Case Report.

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INTRODUCTION

Ischemic colitis (IC) is a rare adverse effect of antipsychotic medications and is most commonly associated with the phenothiazine class of neuroleptics. Different cases reported in patients without other obvious risk factors led to the link between taking neuroleptics and the occurrence of acute ischemic colitis [1]. The severe form is acute necrotizing colitis. This entity is characterized by sudden onset of abdominal pain and bloody diarrhea, progressing rapidly to produce grave illness with general peritonitis and shock [1, 2]. We report a case where such drugs may have contributed to the problem.

MATERIALS AND METHODS

We report a case of a 26 years old Moroccan man, treated for four years for chronic psychosis, under Chlorpromazine treatment, Haloperidol and Trihexyphenidyl, was admitted to the emergency for abdominal pain and diarrhea. Clinical examination: a conscious patient, tachycardia at 120 beats/min, febrile to 38.5 ° C, with generalized abdominal defense. Laboratory tests revealed: GB 33400, CRP 290 mg/l, abdominal tomography revealed colonic distension.
The patient was admitted to the trauma room. He was prepared with rehydration and antibiotics, then he was admitted to the operating room under general anesthesia. The patient was put in supine position. A midline

laparotomy was performed, the surgical exploration revealed a distended and purplish colon with ischemic parietal lesions (Fig 1). During the intervention, a colonoscopy was performed, it showed a normal aspect of the rectum, and at the segment between 18 cm to 35 cm from the anal margin, we found ulcerated lesions with a purplish background without interval healthy mucosa (Fig 2). We were not able to progress further, given the poor preparation. A subtotal colectomy with ileostomy and sigmoidostomy were performed (Fig 3).

The postoperative course was uneventful, and the patient left the hospital at D+6. The histological examination of the surgical specimen showed superficial and extended ulcerations without interval healthy mucosa. The restoration of continuity by ileorectal anastomosis was achieved two months later with a good clinical outcome, after rectoscopy control, who was normal. The patient was recommended for psychiatry to reevaluate his antipsychotic regimen given the association with IC.

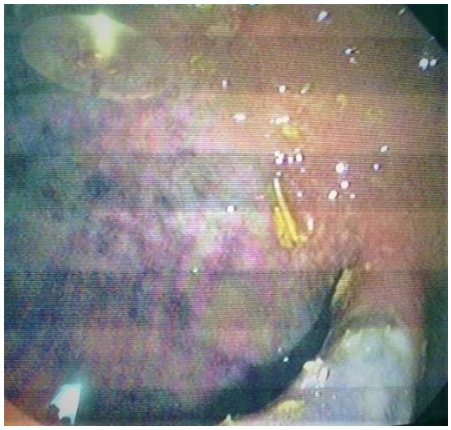

Fig 1: Intraoperative Image of the Distended and Purplish Colon with Ischemic Parietal Lesions.

Fig 2: Colonoscopy Image Showed Ulcerated Lesions with a Purplish Background of the Colonic Mucosa.

Fig 3: The Surgical Specimen of Sub-Total Colectomy.

DISCUSSION

Intestinal ischemia is partial or total necrosis of the small intestine and/or of the colon, with a mucosal starting point of transmural progression [1]. The deterioration of the microcirculation of the wall of the intestine is responsible for the installation of the intestinal necrosis and perforation, which may progress in the absence of appropriate treatment, to multi-organ failure and death. That is why it's essential to consider because of the potentially fatal outcome [1-3]. Ischemic colitis (IC) is the most common form of intestinal ischemia, accounting for more than half of cases [2,3]. It often presents as mild and transient episodes, without the need to seek medical attention, and some patients are misdiagnosed as inflammatory bowel disease or infectious colitis [3].

It is most common in the elderly with multiple comorbidities [2]. The incidence rate varies from 1.1 per 100,000 in those younger than 40 years to 107 per 100,000 among those aged 80 and older. The incidence is higher in psychiatric patients treated with neuroleptics compared to the general population [2,3].

Many drugs have been shown to cause IC. Antipsychotic medications, especially atypical antipsychotic drugs, nonsteroidal anti-inflammatory drugs, digitalis, dopamine, epinephrine or norepinephrine, methysergide, vasopressin, pseudoephedrine, cyclosporine, danazol, diuretics, flutamide, glycerin enema, phospho soda solution, tricyclic antidepressants, have been considered to increase the risk of causing IC. [3]

Ischemic colitis is an uncommon adverse effect of antipsychotic agents, more commonly found with phenothiazine drugs and atypical neuroleptics such as clozapine. Clozapine is the atypical antipsychotic drug most commonly described in the literature as the cause of ischemic colitis [4,5]. The risk of developing ischemic colitis increases in 2 situations: when anti-cholinergic drugs are associated with neuroleptics or when a high-dose treatment is used. [4,5]

The mechanism most often mentioned in psychiatry, is the effect of anticholinergic medication responsible for digestive atony. Constipation resulting from parasympatholytic treatment effect and sedentary lifestyle of patients in psychiatric hospitals would be responsible for chronic digestive distension and intracolonic hypertension that can lead to ischemia. Moreover, the blocking neuroleptics of dopamine receptors DA1 mesenteric is responsible for the inhibition of reflex dilatation of mesenteric vessels, which could also be a leading cause of IC [6].

The clinical presentation is varied and non-specific, but in most cases, the signs are abdominal pain, vomiting, rectal bleeding, diarrhea, or intestinal obstruction, probably following the recent worsening of constipation. In the most severe cases, it could lead to multi-organ failure and a shock [7].

Colonoscopy has become the gold standard for the diagnosis of IC because it allows one hand to view moderate mucosal lesions and the realization of biopsies. It assesses the severity and extent of lesions [8]. It is cons-indicated in severe forms and must be practiced with caution, without excessive insufflations. [8].

Our patient is young compared with most IC cases. He did not have any predisposing factors for atherosclerosis,

such as diabetes, dyslipidemia, hypertension. Moreover, the investigation ; microbiologic cultures, serologic tests, laboratory tests, endoscopic exams and other diagnostic exams. The main causes of ischemic colitis were excluded, such as, coagulation disorders and viral or bacterial infection, immune (Crohn's disease, celiac or gluten-sensitive enteropathyand vasculitis), congenital (Meckel diverticulum or duplication), vascular and neoplastic. . Thus, no factors for IC were detected in the patient by appropriate workup other than the long-time use of neuroleptics.

The morbidity and mortality of surgery for neuroleptic drug-induced colitis is higher than for colitis due to other causes [9]. A better knowledge of this condition should promote earlier diagnosis and improve management. Few retrospective studies have focused specifically on treatment, and they do not make recommendations regarding indications for surgery and the extent of colectomy [9]. For severe cases, it is generally recognized that an aggressive surgical approach based on extensive colectomy is the only way to reduce mortality [2, 9]. Our attitude to management is an aggressive surgical approach based on clinical and endoscopic findings.

CONCLUSION

Our case supports that neuroleptics can promote IC in patients under antipsychotic medications. It should alert physicians who prescribe neuroleptics and colorectal surgeons to the possibility of intestinal ischemia. Although the clinical presentation is non-specific, abdominal pain and distension should be headed and endoscopy carried out. A better knowledge of this condition should promote earlier diagnosis and improve management.

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AUTHORS' CONTRIBUTIONS

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COMPETING INTERESTS

The authors declare no competing interests with this case.

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PATIENTS' CONSENT

Written informed consent was obtained from the patient for the publication of this case report.

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