Ischaemic Colitis during Haemodialysis

F Sapmaz, IH Kalkan, S Guliter

INTRODUCTION

Ischaemic colitis results from a chronic or acute drop in the blood supply to the bowel and accounts for 6–18% of the causes of acute lower gastrointestinal bleeding. Diabetes mellitus, hypotension, advanced age, aortic surgery and peripheral vascular disease have also been suggested to be predisposing factors for ischaemic colitis (1).
In this report, we present a case of ischaemic colitis in haemodialysis with a good response to conservative treatment.

Keywords: Haemodialysis, ischaemic colitis

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INTRODUCCIÓN

La colitis isquémica se produce como resultado de una caída crónica o aguda del suministro de sangre a los intestinos, y representa el 6% – 8% de las causas de la hemorragia gastrointestinal baja aguda. La diabetes mellitus, la hipotensión, la edad avanzada, la cirugía de la aorta, y la enfermedad vascular periférica también se han sugerido como factores predisponentes de la colitis isquémica (1). En este reporte, presentamos el caso de una colitis isquémica en un paciente en hemodiálisis (HD), con una buena respuesta al tratamiento conservador.

Palabras claves: Hemodiálisis, colitis isquémica

CASE REPORT

A 50-year old male with Type 2 diabetes mellitus (DM) and end-stage renal disease due to diabetic nephropathy had been on haemodialysis for six months. He presented with a five-hour history of abdominal pain and haematochezia which began during haemodialysis. His past medical history was significant for DM for twenty years. There was no history of radiation therapy or recent abdominal surgery. His home medications included insulin levemir 40 U daily and esomeprazole and he was on haemodialysis treatment three times per week. On physical examination of the abdomen, bowel sounds had increased and there was tenderness with minimal palpation. His initial laboratory findings revealed haemoglobin level of 6.4 mg/dL, leukocyte count of 13 500 /dL, serum glucose level of 183 mg/dL. Multiple stool cultures were negative for ova cysts and parasites. Colonoscopy showed necrotic mucosa with subepithelial haemorrhage, fragility and bullous mucosal lesions starting at the proximal transverse colon and ending at the proximal ascending colon. Computed tomography (CT) showed a markedly thickened bowel wall in the distal sigmoid colon to distal transverse colon.

Colonoscopic biopsies demonstrated changes consistent with ischaemic colitis, including vascular congestion, mucosal necrosis, oedema and loss of crypts.

The patient was hospitalized and started on antibiotic and anti-coagulant therapy for two weeks and did not have any further events. Two weeks later, the colon appeared normal on coronoscopy.

DISCUSSION

Colonic ischaemia is very rare and it can be occlusive or non-occlusive. Non-occlusive ischaemia results from lack of blood flow in the absence of mechanical obstruction (2).

Most elderly people can be affected by ischaemic colitis. It usually occurs after major cardiovascular surgery, in low flow states such as hypotension, congestive heart failure, arrhythmia, using vasoconstrictive drugs and may accompany

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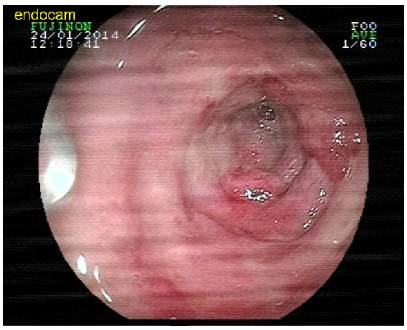

Figure: Endoscopic image of patient's ischaemic colitis.

systemic disorders like rheumatoid pathology or DM (3).

Non-occlusive colonic ischaemia represents 25–40% of cases of intestinal infarction and 9% of the causes of death in haemodialysis (4).

The mechanism leading to ischaemic colitis proctitis is not completely clear. Thoren *et al* observed that the reflex vasoconstriction induced by central hypovolaemia includes a significant reduction of jejunal mucosal perfusion in supine resting humans (5). This physiologic response may be superimposed on atherosclerotic narrowing of the aortoiliac vessels. It can be one mechanism for intestinal ischaemia in ill patients.

The symptoms usually include abdominal pain, diarrhoea and haematochezia, similar to our patient. Abdominal pain is often of colicky character. The clinical presentation of ischaemic colitis is nonspecific and its severity depends on the extent of the ischaemia.

In non-haemodialysis patients, symptoms usually appear after occlusive ischaemia of the left colon and sigmoid. In haemodialysis, younger patients are affected in the right colon, with more severe lesions and more bleeding, always preceded by a trigger, mainly severe hypotension (4).

The treatment of ischaemic colitis is determined by the severity. Conservative therapy, including bowel rest, fluid replacement, antibiotics, vasodilators and anticoagulants can be used for non-occlusive ischaemia (6). Surgery is suggested when peritonitis or bowel wall necrosis is determined.

In conclusion, ischaemic colitis may ocur in haemodialysis patients. These patients may present with all of the clinical symptoms of mesenteric ischaemia, including intestinal angina, ischaemic colitis and intestinal infarction. In retrospective studies with computed tomography of the abdomen and autopsies on haemodialysis and peritoneal dialysis patients, the incidence of the ischaemic colitis is 18.1% and 14%, respectively.

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