

Management of enterovesical fistula secondary to crohn disease

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Abstract

Crohn's disease (CD) is an intestinal chronic inflammatory disease that can cause damage by contiguity of the urinary tract. Although common form is fistulizing in 35% of patients with CD, the entero-urinary fistulas are rare 2-8%.

Diagnosis is based on clinical computed tomographic data. Medical treatment appears to be effective for isolated ileo-vesical fistula, however the association with other fistula and the presence of complications would impose a possible surgery.

Introduction

The entero-vesical fistula (EVF) secondary to Crohn's disease (CD) is a rare situation (< 8%) [1], the treatment still not well codified. Despite the effectiveness of medical treatment confirmed in some patients, the closing of the fistula can not often be obtained, which would require surgical treatment in most of these patients.

We report a patient with EVF secondary to the CD and discuss through a review of the littérature clinical, diagnostic and therapeutic aspects.

Case Report(s)

AF a child 13 years, followed for Crohn's disease for 5 years under several treatments: corticosteroids, salazopyrin, metronidazole ... which has pneumaturia, hematuria and urinary tract infections. The CT scan objectified communication between the ileum and bladder with pneumocysty (Figure 1-2).

Laparotomy revealed an ileocecal magma adhering to the bladder dome. A disconnection of the two organs by resecting a portion of the bladder and it suture in two shots were conducted. The surgical procedure was completed by a right ileo-hemicolectomy with end to end jejuno-colic anastomosis. The bladder catheter was kept for 12 days. The outcome was favorable.

Discussion

Fistulisation is frequent in the CD and represents 35% of patients. However, the EVF are rare, and only occurring in 2-8% of patients [1,3]. The CD is the most common cause of EVF (20%) [2]. The constitution of an EVF is usually secondary to intra-abdominal abscess, which opens secondarily in the bladder. More rarely, it could be an extension of the digestive inflammatory process to the bladder usually ileocecal or sigmoid. EVF may complicate known and evolutive CD or reveal it immediately. The origin of most of the EVF is the ileum followed by the sigmoid colon. There is a tendency for EVF to coexist with other types of fistulas [1-4].

The sex ratio is 2-3 [4,5]. Although Crohn's disease is predominant in women, it is generally accepted that the uterus located between the bowel and bladder, can play the role of barrier protecting the bladder against bowel disease and reduce the risk of formation of EVF in women [6,7].

The diagnosis is often clinic; the pneumaturia and fecaluria are the most evocative signs [8]. They are often replaced with pyuria, less evocative but common [5,9].

The contribution of abdominal CT scan is considerable, not only for diagnosis based on the presence of a pneumocysty and bladder opacification after ingestion of the contrast agent, but mostly to make a lesion cartography of the MC and search associated intra-abdominal abscess that could impose emergency percutaneous drainage [3,4,8].

The magnetic resonance imaging (MRI) is more sensitive than CT for the detection of VF[10].

The transit of the small intestine, hydrosulubles enema and colonoscopy may assist in identifying the orifice and the fistula tract as well as complete research of other CD intestinal lesions [3,4,8].

Intestinal inflammation plays a major role in the formation of VF. Therefore, control by medical treatment allows patients to live comfortably for a long time and to avoid a possible surgery[11,12, 13].

Patients treated with azathioprine have a long-term remission before surgery [11, 13]. Treatment with corticosteroids can lead to delayed healing by increasing the risk of abscess formation and persistent

urinary infections [14].

Univariate analyzes suggested that the sigmoid origin of EVF and simultaneous complications of CD were significant prognostic factors.

Resistance to medical treatment in patients with sigmoid origin has been attributed to development of intra-abdominal abscesses and persistent urinary infections.

Medical treatment has no place in patients with simultaneous complications.

The indications for surgery are simultaneous complications: intestinal stenosis, abscess, entero-cutaneous fistula, entero-enteric fistula, obstruction of the ureter or persistent urinary tract infection [5,15, 13].

In our case, the fistula occurred in a patient already under medical treatment, which prompted us to operate.

Previous retrospective studies have focused on the surgical treatment of EVF. Prospective analyzes could be very useful to discover new therapies, but such an approach can be limited by the low incidence of the disease.

Conclusion

Medical treatment is the main option for patients with an isolated EVF. The presence of other complications (intestinal stenosis, abscess, entero-cutaneous fistula, entero-enteric fistula, persistent ureteral obstruction) involve surgery. Patients with sigmoido-vesical or ileo-sigmoid-vesical fistulas are more likely to require surgery that simple ileo-vesical fistula

Abbreviations(s)

EVF = entero-vesical fistula

CD = Crohn's disease

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Conflict of interest

The authors declare no conflict of interest.

Authors contribution

All authors mentioned have contributed to the development of this manuscript. All authors also declare to have read and approved the final manuscript.

Illustrations

Illustration 1

Entero-scan showing opacification of fistula tract between the terminal ileum and bladder



Illustration 2

scannographic frontal section showing the EVF with pneumocysty

