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Ileo-colo-rectal Intussusception Secondary of Cecal Lipoma Simulating Strangulated Rectal Prolapse

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Authors' contributions

This work was carried out in collaboration among all authors. Authors FB, IH, AEB designed the study, performed the statistical analysis, wrote the protocol and wrote the first draft of the manuscript. Authors IH and AEB managed the analyses of the study. Author IH managed the literature searches. All authors read and approved the final manuscript.

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Case Report

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ABSTRACT

Acute intussusception determines a case of severe occlusive. it is a rare clinical entity in adults. It is most often for small bowel, with a difficult clinical diagnosis, but facilitated by imaging assessment, mainly the abdominal computed tomography CT scan, which permits to make the diagnosis and to find the etiology with certainty. The treatment of intestinal intussusception in adults is always surgical, the use of pathophysiology is necessary for diagnostic confirmation; it is usually secondary to a sub mucosal lipoma. We report the case of a patient admitted in our emergency for an ileal-coeco-colo-rectal invagination prolapsed across the anus, which simulated a strangulated rectal prolapse.

Keywords: Acute intestinal intussusceptions; cecal lipoma; strangulated rectal prolapse.

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1. INTRODUCTION

Intestinal intussusceptions is defined as by telescoping and penetration of a proximal intestinal segment in the distal segment. It defines an occlusive table potentially serious due to the risk of intestinal ischemia [1]. Intussusception is one of the less common causes of intestinal obstruction among adults and represents 1% of the intestinal occlusions in Europe and 3% in Africa [2]. It is usually covert in its clinical presentation. The ileo-colic type with accompanying anal protrusion is extremely rare. It is generally secondary to malignant tumors such as adenocarcinomas of the ileo-cecal valve or to benign tumors such as lipomas polyps and Meckel diverticula [3].

We report a rare case of an ileo-colic rectal intussusception on cecal lipoma shown in his strangulated rectal prolapse aspect.

2. OBSERVATION

A 41 years old single woman, without past medical history or surgical intervention, admitted to visceral surgical emergencies, for the appearance of anal prolapsed mass over 3 days, painful and unreducible. The patient had pelvic pain, vomiting, diarrhea and rectal bleedings in low abundance, without fever with alteration of overall health condition. Physical examination finds no fever with 37.7°C with normal heart pulse and respiratory rate, Performance status (PS): 1, the abdomen was slightly distended with dullness and hypogastric sensitivity, no palpable mass, while node examination and the hernia holes were free. The perineum exam noted the presence of voluminous rectal prolapse mass of 5 cm of diameter with ulceration and suffering, inflamed, with congestive aspect, painful and unreducible. There was pain on rectal palpation and bleedings (Fig. 1).

The patient underwent a surgical intervention decided in emergency for strangulated rectal prolapse and the hypogastric sensitivity. Median laparotomy was perfomed. The surgical exploration finds ileo-cecal-colo-rectal intussusception over a cecal mass with a lack of apposition of ascending colon to the retroperitoneum and the exteriorization of the intussusception flange through the anus (Fig. 2). The right ileo-hemicolectomy was perfomed after disintussusception of the ascending colon, and ileo-colostomy was achieved with the Douglas draining and the right parietal colic gutter by two Redon drains.

Fig. 1. Voluminous rectal prolapse

Fig. 2. Ileo-cecal-colo-rectal intussusception over cecal mass with exteriorization of the intussusception flange through the anus

The post-operative was marked by the surgical site infection (SSI) cured by antibiotherapy and wound dressing twice in a day. The retake of the transit was at day 1, and Stomia was functional and nutrition was permitted at D1. The first mobilization was at D1 postoperative. The outflow drains was some Cc of sero-hematic fluid and drains were removed on D3 post-operative. The patient was discharged from hospital on D15 postoperative after a complete cicatrisation of the surgical wound.

The pathology results of the resected ileo-colon specimen objectived benign proliferation tumor cells with a submucuous lipoma aspect, with surface ulceration coating and made complicated the intestinal intussusception.

The limits resection were congestive with adenitis reaction. Thus, the final diagnostic was

an ileo-caeco-colic and rectal intussusception with lipoma.

Six months later, the ileo-colic continuity achieved and the patient progressed favorably and discharged on the D5 without complications. The follow up in 2 years was uneventful.

3. DISCUSSION

Acute intestinal intussusception (AII) is a clinical entity relatively frequent in children. It is rare in adults and represents only 1 to 5% of acute intestinal occlusions [4].The acute intestinal intussusception (AII) is most often of the small bowel (48% - 70%), ileo -colic (25% - 40%) and rarely colic (5% - 18%) [5]. It is generally secondary to an intestinal lipoma. The latter seated most often on the cecum or the ascending colon [6]. In contrary to children where the intussusception is often idiopathic, in adult, the tumor is initial sub-mucous and develops towards the lumen with mechanical phenomenon of mucosa pression [1] with intermittent phenomena of colo-colic intussusception resulting in partial obstruction of the colic lumen and mucous ulcerations [7]. The possibility of occurring of acute intestinal intussusception is directly correlated to its size when it is larger than 2 cm according to different studies [7, 8].We report the case of a patient admitted to emergency for ileo-cecal-colo-rectal prolapsed intussusception through the anus, with aspect of strangulated rectal prolapse.

The diagnosis of intestinal intussusception can be difficult due to the variety of its symptomatology, spermeated by an acute intestinal occlusion in 10 to 30% of forms in Europe against 75% to 100% in Africa [2]. The sub occlusive type occurs progressively over few days or several weeks with non-specific abdominal symptoms (transit disorder, general abdominal pain, occult bleedings…).

The classic triad of AII more observed in infants associates paroxystic abdominal pain, bleeding, diarrhea and a palpable mass that is present only in 9,8% of cases in adult patients[2,8]. However the initial clinical presentation, the diagnosis is often carried out using imaging (ultrasound, CT scan) and rarely during exploratory surgery [1].

Radiologically, the abdomen X ray without preparation can show gas and precise the site of occlusion [5].

Echography is performed to carry out the diagnosis of both the intestinal intussusception and of the well-ilimited hyper-echogenous tumor lesion surrounded by anormal intestinal wall [5]. It reveals the classical image over transversal cutting sit reveals an image ``in sandwich'' or of ``pseudo-kidney '' [1]. However, its performances are limited by the abundance of gases due to the intestinal occlusion and it's highly operator-dependent and those classic signs are not always visualized [2,9].

The CT scan perfomed in emergency increases the sensitivity of the diagnosis. It is more efficient than echography [1] and enables to establish undoubted diagnosis in the adult patient and to detect a prospective etiology [5]. It allows to diagnose the obstructive syndrome, the mechanism of intussusception. The classic CT findings is the 'target' signor 'sausage-shaped' soft tissue mass [9].

The finding of mesenteric vessels around the lumen of the intestinal loop has also been described [9]. Its precise the site localization of intussusception, the signs of intestinal sufferings [4,6] and to show its cause in 71% of the cases intralumen and extralumen masses [1,2]. The treatment of acute intestinal intussusception in adult patients is always surgical and does not leave space for any reduction by hypertension under radiologic control [5,7].

The first reduction can be tempted in idiopathic forms [1] when a long segment is implied [2,10] and that its resection can expose to a short small bowel syndrome.

The temptation of disintussusception exposes to the risk of intestinal perforation [1]. However, it contra-indicated if there is signs of intestinal ischemia of inflammation or if malignancy are suspected [2]. When the intestine is completely unrolled after disintussusception, palpation allows –in most cases- to detect the causing obstacle [10] and allows to assess the limits of resection and sometimes to reduce its extension mainly in case of benign tumor [1].

An extended or segmental resection is obligatory achieved with respect to the carcinological rules when an evidently malignant tumor is detected [1].

When dis-intussusception is impossible or when the intussusception flange is not obviously viable, the resection is perfomed taking in block

or the mass, taking care to carry out anastomosis of the intestines healthy and well-vascularized [10].

In our case, the necessity of disintussusception was indicated due to the length of an intussusceptum segment, including the ileum, the cecum, and the colon with exteriorization of the intussusception flange through the anus.

The pathology result is required to confirm the diagnosis and must be completed by immunohistochemistry assessment in certain cases [1]. Lipoma develops in 90% of the cases on the adipocytes of the sub-mucus, rarely in the sub-serous. This lesion is often isolated but multiples lesions location have been descripted in studies in 10% of cases [7].

Acute intestinal intussusception causes venous congestion with parietal edema. If the intussusception is not reduced quickly, the course may progress to ischemia with intestinal necrosis, perforation, septic shock and death [11].

The prognosis of the AII in the adult is related to the duration of the evolution. The extension of the lesions and to the nature of the cause [5], and mortality increases from 8.7% in benign causes to 52.4% in malignant causes) [9].

In intestinal necrosis cases, even the small resection has morbidity with important nutritional subsequences for the patient [11].

4. CONCLUSION

Acute intestinal intussusception in adult patients is rare. Giant ileo-colo-colic intussusception on the cecal lipoma is an exception. The symptomatology is not specific and the CT scan has a high interest in management to diagnose and to precise the site of occlusion and the etiology.

The treatment of intussusception in adults is always surgical. The length of resection depends on the size of the lipoma, location, the peroperative observations in the presence or not of intestinal necrosis or tumor (whether benign or malignant) to treat obstruction and to establish the exact diagnosis.

CONSENT

As per international standard, patient's consent has been collected and preserved by the authors.

ETHICAL APPROVAL

As per international standard guideline, written ethical approval has been collected and preserved by the author(s).

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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