



Adult Chronic Intussusception Caused by Ileal Adenocarcinoma Treated with Ileal Laparoscopic Resection: A Case Report

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Abstract

Introduction: Intussusception is a clinical condition caused by the "telescopic" prolapse of a proximal part of the bowel into a distal one. In the pediatric age it is a common disease with idiopathic etiology. In adult intussusception is a rare condition and symptoms rarely are acute and are often non-specific, causing a delayed diagnosis.

Clinical Report: This report presents the case of a 72-years old woman complaining recurrent abdominal pain with sub-occlusive episodes, who was eventually diagnosed with intussusception caused by an ileal adenocarcinoma, after one year of recurring symptoms.

Discussion: Adult intussusception is a rare condition often caused by an underlying benign or malignant disease. The difficult to recognize specific symptoms leads often to a diagnostic delay and in many cases a correct diagnosis is made only during the surgery.

Conclusion: Adult intussusception is an infrequent condition that can hide a malignant disease. For this reason surgery should be considered as the primary treatment.

Keywords: Ileal adenocarcinoma; Chronic intussusception; Adult intussusception; Laparoscopic

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Introduction

Intussusception is a clinical condition caused by the "telescopic" prolapse of a proximal part of the bowel into a distal one. It involves both the small bowel and the large bowel [1]. This condition is more common in the pediatric age, with its mainly idiopathic etiology and its non-operative treatment. In adult intussusception is a rare condition and represents the 5% of all cases of intussusception and 1% to 5% of all cases of bowel obstruction in adult. Unlike pediatric intussusception, in adult symptoms rarely are acute and often are non-specific, causing a delayed diagnosis. In adulthood its etiology is often related to an underlying benign or malignant disease [2]. In that subgroup of population surgical approach leads to a correct diagnosis and a definitive relief of symptoms. We report the case of a woman who had multiple accesses for recurring sub-occlusive episodes at our hospital. One year after the onset of symptoms, the patient was diagnosed, with intussusception caused by an ileal adenocarcinoma. This work has been reported in line with the SCARE criteria [3].

Case Presentation

A 72-years old woman came to our Unit Ambulatory, in July 2019 complaining recurrent abdominal pain with sub-occlusive episodes characterized by nausea, vomiting and dyspepsia. No alteration was found in her blood exams. Her clinical history included breast cancer (treated with surgery and chemotherapy) and a hysterectomy performed 20 years before. Due to symptoms the patient underwent explorative laparoscopy showing only few intestinal adhesions without any organic or expansive lesion: An adhesiolysis was performed. In the next months, following the surgery, she complained the recurrence of sub-occlusive episodes with abdominal pain, with a spontaneous resolution. An abdominal CT scan, performed in February 2020, showed a "telescopic" sign of small bowel as for an intussusception with the possible presence of a capsulated neoplasm (suspected for a GIST). Surgery was performed in May 2020, after being postponed in March 2020 due to the COVID-19 emergency in our Country.



Figure 1: The explorative laparoscopic proved a thickened appearance of a small bowel tract suggestive for an intussusception.



Figure 2: Small median incision.

The explorative laparoscopic proved a thickened appearance of a small bowel tract suggestive for an intussusception (Figure 1). The invagination was caused by the presence of a solid lesion. Then we continued with a small median incision (Figure 2) thus performing an intestinal resection with a side-to-side mechanical anastomosis. The post-operative period was regular and the hospital discharge occurred on the fifth post-operative day. Histological examination indicated a G2 ileal adenocarcinoma.

Discussion

Intussusception is a clinical condition characterized by the “telescopic” invagination of a proximal part of the bowel into a distal one.

Basing on the intestinal tract involved by the invagination, intussusception can be classified in 4 categories:

- Entero-enteric: Invagination of a small bowel tract into another one.
- Colo-colonic: Invagination of a colon tract into another one.
- Ileo-cecal: Invagination of the ileocecal valve into the ascending colon.
- Ileo-colic: Invagination of the last ileal loop through the ileocecal valve into the ascending colon [1,2,4].

Often distinction between the last two categories can be very difficult [4]. Intussusception is a relatively common pathology in pediatric age where it often appears with classic triads of symptoms: pain, hematic diarrhea and the presence of an abdominal palpable mass. In adult intussusception is a rare condition accounting for 5%

of the cases of intussusception and representing between 1% and 5% of the causes of bowel obstruction [4]. In pediatric age its etiology is generally idiopathic, while in adult only 15% of the cases could be classified as idiopathic. The causes leading to an intussusception in the adult can be benign diseases (Meckel’s diverticulum, bowel adhesions, polyps, and diverticula), malignant diseases (primary or secondary neoplasms) and even iatrogenic complication (e.g. positioning of enteral nutrition tubes) [2]. The frequency of the etiology depends on the location of the invagination, in fact colonic intussusception is often caused by neoplasm, while small bowel intussusception are frequently due to benign diseases [5,6], although in literature cases of ileal intussusception caused by leiomyosarcomas, lymphomas or malignancy are reported [7-10]. Unlike pediatric age, in adult the symptoms are mostly non-specific and difficult to recognize. In some cases intussusception presents as an acute bowel obstruction; however more often, as also described in our case report, the main symptom is abdominal pain, sometimes associated with nausea vomiting and hematochezia. In most cases symptoms are episodic and characterized by exacerbation and spontaneous resolution [5,6,11]. Symptoms such as anemization and weight loss should be suspected for a malignant etiology [11]. This non-specificity of disease’s presentation leads often to a diagnostic delay, even of a few months (in our report the diagnosis was delayed for 10 months); and in many cases a correct diagnosis is made only during the surgery. Abdominal CT-scan is the principal diagnostic method and may show a “target” or a “sausage” appearance of the intestinal loop, furthermore CT allows to discern between idiopathic causes and other pathologic condition related ones [12,13]. While a conservative treatment, by air-enema, is often sufficient for pediatric intussusception, in adult this approach should be excluded because of the high number of secondary intussusception (up to 90% of the cases) [13]. In these cases, in fact, intussusceptions’ reduction should be avoided because of the high risk of intravenous or intravisceral neoplasm dissemination, bowel perforation with diffusion of neoplastic cells or microorganisms in abdominal cavity and, in surgical patient; this can lead to an increased risk of anastomotic complications [4]. However, during surgery, prolapse reduction can be useful to limit the length of resected bowel especially when the resection can cause a short-bowel syndrome. Surgery is the most suitable treatment for adult patients with an intussusception. The kind of surgery changes by site of the invagination. For small bowel intussusception an intestinal resection is often required; however a resection following oncological criteria, especially for colonic intussusception, is always required when a neoplasm is suspected [13,14]. Laparoscopic approach can achieve the same results of a traditional approach and can add the advantages of a mini-invasive surgery such as reduction of post-operative pain and in-hospital stay. However laparotomic approach is still widely used in urgency.

Conclusion

Adult intussusception is an infrequent condition. Clinical onset is rarely acute and symptoms are often non-specific and recurring, causing a delayed diagnosis. Unlike in pediatric age adult intussusception is frequently caused by an underlying benign or malignant disease. For this reason surgery should be considered as the primary treatment, reserving a conservative approach only in select cases.

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