

Colonic Intussusception in Adult: Report of Two Clinical Presentations

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Abstract

Introduction: The intestinal intussusception is defined as a telescoping of an intestinal segment within another showing a cause to do so in about 90% of cases when it affects adults, unlike what occurs in children. Although it represents a rare cause of hospital admission, can present clinical acute abdomen or chronic and intermittent symptoms of abdominal pain.

Case report: Case 1: Female patient, 49, with acute abdominal pain associated with vomiting and mild leukocytosis. CT image showed on target and during surgery checked intussusception between the descending colon and sigmoid. Case 2: Male patient, 65 years complaining of chronic abdominal pain and intermittent melena with colonoscopy showing great aspect of polypoid lesion in ascending colon occupying 90% of the light, crispy and ulcerations covered by fibrin and computed tomography with intussusception image. Underwent right hemicolectomy.

Conclusion: It emphasizes the need to be suggested intestinal intussusception hypothesis primarily in cases of chronic and intermittent symptoms of abdominal pain and intestinal subocclusion in settings.

Keywords: Abdominal pain, Intestinal intussusception, Surgical treatment

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Introduction

The nonspecific abdominal pain is the leading cause of admission to the surgical emergency resulting from acute abdominal complaints, which can be defined as an acute pain syndrome of varying intensity, which leads the patient to seek medical and requires medical or surgical treatment immediately and if untreated, can develop into worse and deteriorating state General [1]. However, even against this definition, it is known that between 40 and 65% of these paintings do not present diagnoses established during the initial assessment with a recurrence rate that can be up to 30% next year [2].

In adults, intestinal intussusception can manifest as a chronic abdominal pain and indolent or clinic with acute abdomen, especially like obstruction intestinal [3,4], although it is a rare cause of hospital admission in this population, corresponding to 0.003% -0.02% [5], and approximately 5% of cases of intussusception intestinal [6-8].

It is defined as a telescoping intestinal segments within another

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[9, 10], showing both a cause for about 90% of cases, differently from what occurs in children [3].

Meanwhile, it is known that the intussusception presents peculiar characteristics when compared occurs when the small or large intestine, being more frequent association with adenocarcinoma and neoplastic lesions in this localization [9,11]. Furthermore, the intussusception of the bowel is more rare than the small intestine and is approximately 15 to 33% of cases reported [12,13]. Thus, it is recommended in adults surgical treatment of intestinal above intussusception.

The objective in this article is reporting emergency operated patient cases already with preoperative diagnosis of large bowel intussusception in Santa Marcelina Hospital, Sao Paulo.

Case Reports

Case 1: Female, 49 years old, born and raised in Sao Paulo with abdominal pain report cramping on the left flank without irradiation and progressive character with sudden onset and duration of six hours. Presented vomiting associated stasis feature and preceded by nausea.

Physical examination found that the patient was in good general condition, discolored +/4 +and without clinical signs of systemic inflammatory response (SIRS). The abdominal examination found pain in the left flank palpation with mass presence on the site of about five centimeters and mobile without associated signs of inflammation. Furthermore, bowel sounds found to normal. Conducted additional tests with evidence of mild leukocytosis with 13.420 leukocytes/mm³. The X-ray of the abdomen showed no specific changes to acute abdomen. In the face of acute painful condition proceeded to undergo CT scan of the abdomen and pelvis with suggestive of intestinal intussusception finding with respect to target sigmoid colon and blurring the adjacent mesocolon (Figure 1).

Subjected to rectosigmoidectomy with terminal colostomy and burial of the rectal stump with inventory cavity demonstrating about 100ml free sero-hematic liquid and colonic intussusception between the descending colon and sigmoid with discrete proximal dilatation and without intestinal wall ischemia. Progressed well, with favorable postoperative hospital on 4^o day after surgery. Anatomopathological macroscopic revealed the presence of three polyps measuring 1.2 cm, 2.5 cm and 3.0 cm microscopy demonstrating tubular villous adenoma, villous adenoma and adenocarcinoma with low-grade dysplasia, respectively.

The degenerated polyp it was, therefore, well-differentiated adenocarcinoma originating from tubule-villous adenoma with invasion level in the polyps of the colon (Haggitt 2) with free margins and the absence of angiolymphatic and perineural invasion. In addition, lymph nodes examined showed reactive lymphoid hyperplasia.

Case 2: Male, 65 years old with a history of chronic and intermittent abdominal pain around the abdomen about one year of evolution associated with episodes of melena. Internal emergency room in the Hospital Santa Marcelina due melena without low output signals to clinical research. Not initially

presented abdominal pain, but during evolution attends colicky kind of pain in hemiabdomen right with nausea and maintenance melena.

Held endoscopy with result of gastritis and colonoscopy with evidence of great aspect of polypoid lesion in ascending colon occupying 90% of the light, crispy and ulcerations covered by fibrin. Kept as abdominal pain prompted computed tomography of the abdomen and pelvis with intestinal intussusception image scan (Figure 2).

Underwent exploratory laparotomy with extended right hemicolectomy and liver lumpectomy because of intestinal intussusception with nodular lesion in liver segment VI 2 cm in diameter. The inventory of the cavity found intussusception in the right colon.

Anatomopathological showed colon adenocarcinoma with invasion to the serosa and involvement of lymph nodes 5 of 26 analyzed and liver metastasis was referred to oncology.

Discussion

To recognize four types of intestinal intussusception, namely: entero-enteric, colon and colonic, ileo-colonic and ileal cecal [14] occurring form of the large intestine involving only around one third of cases [12,13]. Although most often in children, in adults the treatment is eminently surgical primarily due to the possibility of malignant lesions associated with intussusception frame.

In this respect, most intussusceptions involving the small intestine runs from benign lesions secondary, especially lipoma (tumour of fatty tissue), leiomyoma, hemangioma, Meckel's diverticulum, among others, often from malignant lesions around 15% [4]. On the other hand, the etiology involving invaginations of the large intestine are fundamentally caused by neoplasms, malignant totaling over 65% of cases [15].

The exact mechanism that precipitates intestinal intussusception is uncertain, however, it is believed that an injury or irritating the intestinal wall in the lumen can alter the normal peristalsis being able to begin the process of invaginaçao [15].

Clinically there is a predominance of abdominal pain, nausea and vomiting around 78% of patients [16-18], with lower incidence of complaints related to melena, weight loss and constipation intestinal⁴. Thus, the need for additional tests for diagnosis is crucial, with greater emphasis on the use of abdominal radiographs, abdominal ultrasound and computed tomography of the abdomen and pelvis that has an accuracy between 58 and 78% [19,20], with is consider the best exam.

In these cases one can obtain practically a tomographic image pathognomonic intestinal intussusception where there is a tissue mass with an eccentric area composed of fatty tissue density and visualization of the mesenteric vessels to suffer from an infarction⁴ configuring an image target or likely kidney [21].

Yakan et al. [5] reported retrospectively their cases of 20 adult patients operated on for intestinal intussusception between 2000 and 2008. The average age was 47.7 years, ranging between 21 and 75 years and 11 patients were female (55%). Abdominal pain is the most common symptom (85%) followed by nausea (75%)

and vomiting (70%) with mass palpation for evidence of only 5% of cases.

In addition, the average duration of symptoms was 7.9 days and only 30% of patients had acute complaints under 4 days long. It is obtained In addition, the preoperative diagnosis in 70% of cases and the most common location is enteral (85%) and all colonic cause intussusception were malignancies. In our first reported case, however, there was a clinical acute abdomen with symptoms of evolution hours with abdominal pain and vomiting, and moreover, it was possible to perform the diagnosis preoperatively through the use of computed tomography visualization the classic image target. In addition, consonant with literature data, it was possible to verify the cause with evidence of a degenerated polyp for adenocarcinoma with Haggit 2 [22] classification.

However in the second case presented the main clinical manifestation was melena, which according to data from literature shows an incidence ranging between 5 and 31.25% [5,20,20]. Associated with this, had clinic bowel habits change and chronic abdominal pain. Furthermore, as in the other case the diagnosis of intestinal intussusception also been done preoperatively also evidence of neoplastic lesions in the colon.

Zubaidi and co-authors, on the other hand [10], analyzed 22 patients affected by intestinal intussusception between 1989 and 2000 with an average age of 57.1 years (19-93 years) and a female predominance (59%). Similarly, abdominal pain was also the most common symptom, followed by nausea and vomiting. However, although in preliminary clinical features, preoperative diagnosis was made in only 14% of cases. As for location, 27% of cases occurred in the colonic segment and at that location the cause was malignant in 50% of the times. Surgical treatment was the option in 21 of 22 patients (95%).

Sarma and coauthors [23] in a recent survey in India between the years 2004 and 2010 identified 15 cases of intestinal intussusception with abdominal pain manifestation in all cases, similar distribution between the sexes and a mean age of 44.5 years. They observed symptoms of acute abdomen in 40% of chronic patients and symptoms in other cases. The location just a case occurred in the colon (6.67%).

In Brazil, Hanan and coauthors [20] analyzed 16 cases of intestinal intussusception between the years 1997 and 2007 and abdominal pain also reported by all patients. However, chronic symptoms had 56.25%. The colonic involvement occurred at 31.25% and found as the cause of organ damage in above 87.5% as a whole and the presence of malignancy in the colon in 63.6% of patients.

Regarding the treatment, discussion can be offered as to initially carry out reduction of intussusception and then perform resection or else start up by resection. In case the location of the small intestine, is an effective option for reducing start up and following the bowel resection. However, in cases of intussusception colonic resection is more advisable to carry out the reduction. In such cases, it is perhaps prudent to suggest except in cases of colorectal sigmoid intussusception due to risk of evolving into a abdominoperineal resection of the rectum and definitive [20,23] ostomy.

Conclusion

Although the incidence of intestinal intussusception in adults is rare, it emphasizes the need to be suggested his hypothesis mainly in cases of subocclusion in settings based on history, medical examination and abdominal ultrasound or computed tomography, preferential.



Figure 1 Intussusception image in the left colon in computed tomography.

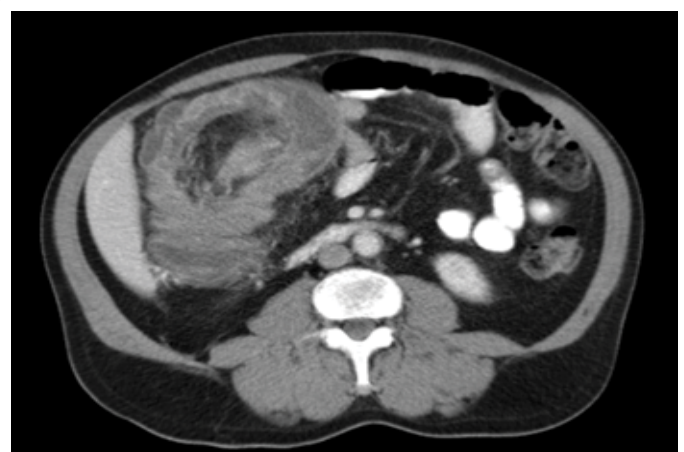


Figure 2 Intussusception image in the left colon in computed tomography.

References

- 1 Utyama EM, Otoch JP, Rasslan S, Birolini D (2007) *Propedêutica cirúrgica* (2ndedn), Manole.
- 2 Rathore MA, Andrabi SIH, Mansha M (2006) Adult intussusception-a surgical dilemma. *J Ayub Med Coll Abbottabad* 18: 3-6.
- 3 Garg P, Garg G, Verma S, Mittal S, Rathee VS et al. (2012) Adult intussusception: case series. *IJRRMS* 2: 36-40.
- 4 Gayer G, Zissin R, Apter S, Papa M, Hertz M (2002) Adult intussusception-a CT diagnosis. *The British Journal of Radiology* 75: 185-190.
- 5 Yakan S, Caliskan C, Makay O, Denecli AG, Korkut MA (2009) Intussusception in adults: Clinical characteristics, diagnosis and operative strategies. *World J Gastroenterol* 15: 1985-1989.
- 6 Agha FP (1986) Intussusception in adults. *AJR Am J Roentgenol* 146: 527-31.
- 7 Azar T, Berger DL (1997) Adult intussusception. *Ann Surg* 226: 134-138.
- 8 Gupta RK, Agrawal CS, Yadav R (2011) Intussusception in adults: institutional review. *Int J Surg* 9: 91-5.
- 9 Namikawa T, Okamoto K, Okabayashi T, Kumon M, Kobayashi M et al. (2012) Adult intussusception with cecal adenocarcinoma: Successful treatment by laparoscopy-assisted surgery following preoperative reduction. *World J Gastrointest Surg* 27: 131-134.
- 10 Zubaidi A, Saif FA, Silverman R (2006) Adult intussusception: a retrospective review. *Dis Colon Rectum* 49: 1546-51.
- 11 Shinoda M, Hatano S, Kawakubo H, Kakefuda T, Omori T et al. (2007) Adult cecoanal intussusception caused by cecum cancer: report of a case. *Surg Today* 37: 802-805.
- 12 Chang TC, Liang JT, Lin BR, Huang J, Lin HM (2010) Clinical-pathological features of colonic intussusception in adults. *J Soc Colon Rectal Surgeon* 21: 23-28
- 13 Marinis A, Yiallourou A, Samanides L, Dafnios N, Anastasopoulos G et al. (2009) Intussusception of the bowel in adults: a review. *World J Gastroenterol* 15: 407-411.
- 14 Marinis A, Yiallourou A, Samanides L (2009) Intussusception of the bowel in adults: A review. *World J Gastroenterol* 15: 407-411.
- 15 Tan KY, Tan SM, Tan AG, Chen CY, Chng HC et al. (2003) Adult intussusception: experience in Singapore. *ANZ J Surg* 73: 1044-1047
- 16 Weilbaecher D, Bolin JA, Hearn D (1971) Intussusception in adults. Review of 160 cases. *Am J Surg* 121: 531-5.
- 17 Frydman J, Ben-Ishay O, Kluger Y (2013) Total ileocolic Total ileocolic intussusception with rectal prolapse presenting in an adult: a case report and review of the literature. *World Journal of Emergency Surgery* 8: 37.
- 18 Chien HW, Wu CH, Tsai MY, Teng YH (2009) Adult Intussusception Induced by Colonic Adenocarcinoma: A Case Report. *J Emerg Crit Care Med* 20: 221-4.
- 19 Wang LT, Wu CC, Yu JC, Hsiao CW, Hsu CC et al. (2007) Clinical entity and treatment strategies for adult intussusceptions: 20 years' experience. *Dis Colon Rectum* 50: 1941-1949.
- 20 Hanan B, Diniz TR, Luz MMP, Conceição AS, Silva RG et al. (2007) Intussuscepção intestinal em adultos. *Rev Bras Coloproct* 27: 432-8.
- 21 Cunha FM, Figueiredo SS, Nobrega BB, Oliveira GL, Monteiro SS et al. (2005) Intussuscepção em crianças: avaliação por métodos de imagem e abordagem terapêutica. *Radiol Bras.* 38: 209-18.
- 22 Haggitt RC, Glotzbach RE, Soffer EE (1985) Prognostic factors in colorectal carcinomas arising in adenomas: implications for lesions removed by endoscopic polypectomy. *Gastroenterology* 89: 328-6.
- 23 Sarma D, Prabhu R, Rodrigues G (2012) Adult intussusception: a six-year experience at a single center. *Annals of Gastroenterology*. 25: 1-5.