Intestinal intussusception

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Case presentation

A thirteen-year-old female mulatta patient that denied previous diseases. She came to the emergency department complaining of weight loss of approximately 5 kg in 15 days (weight = 34.0 kg) and the appearance of an abdominal mass. At the admission physical examination, the patient was in good general health status, had pale skin +/4+, was dehydrated +/4+, eupneic, anicteric, acyanotic, afebrile, had submandibular lymph nodes with fibroelastic consistency not adhered to deep planes, and had normal cardiac and respiratory auscultation. The abdomen presented a movable mass, painless, located in the left flank, 10 x 4 cm in size; decreased air-fluid noise gargling was detected without visceromegalies; a 4-cm scar was observed in the right iliac fossa due to previous appendectomy, without signs of inflammation and presence of bilateral inguinal lymph nodes with inflammatory characteristics. Rectal examination was painless, with normotensive sphincter, soft stools in the rectal ampulla, and blood on the glove.

The patient underwent an abdominal computed tomography (CT), which presented an image suggestive of intussusception in the small intestine (target image) (Figure 1), and the same image was seen on the abdominal ultrasound performed later.

An exploratory laparotomy was performed, and an intussusception was found at one meter from the angle of Treitz (Figure 2). The invagination was undone and a palpable intraluminal polyp injury was removed by enterotomy and sutured. The patient had good postoperative evolution and was discharged 5 days after surgery.

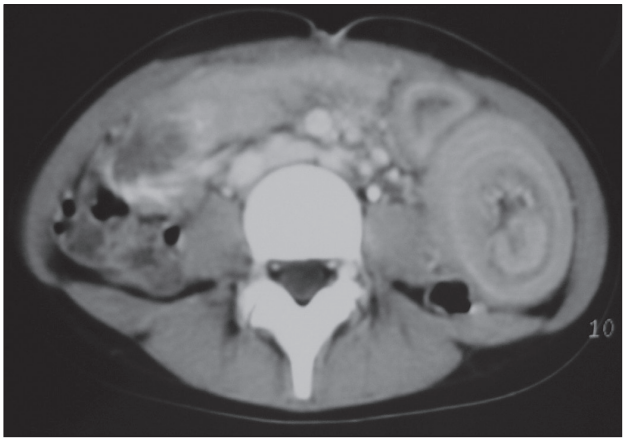

Figure 1 – Abdominal CT showing the target image with multiple concentric layers that characterize intestinal intussusception.

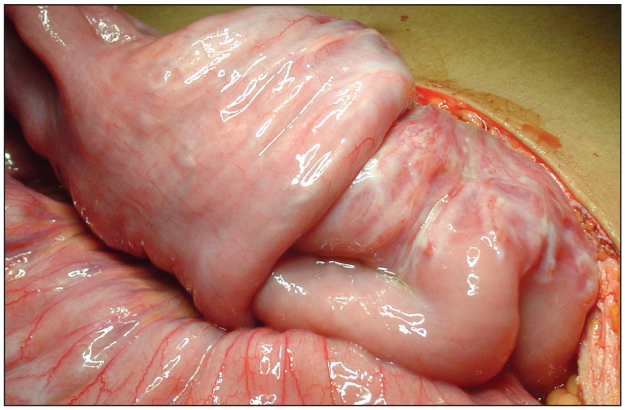

Figure 2 – Small bowel loop showing intestinal intussusception at the jejunum level.

Discussion

Intestinal intussusception is the most common cause of small bowel obstruction in children. It usually occurs with invagination of the proximal segment into the distal.

The peak incidence varies from the fifth to the ninth month of life, with only 10% to 15% of cases occurring after 2 years of age. There is a higher prevalence in males (60-70% of cases), especially in cases of older children, at a frequency of 1:1,000 live births. Ethnic differences and correlation with family history have not been observed. The classic triad of intussusception symptoms are abdominal pain, vomiting, and elimination of mucus with blood ("strawberry jam") through the rectum. The pain in the acute phase is characterized as intermittent, lasting 4 to 5 minutes with varying intervals of approximately 20 minutes.

The presence of abdominal mass is an important finding for the diagnosis, with an incidence of 48%, and the most common location is the hepatic flexure. The most common initial symptom in young children is vomiting, unlike older children, in whom abdominal pain is the first symptom. The first symptom is not due to the obstructive factor, but rather to a reflex pain mechanism, which is very intense.

When the invagination occurs in the small intestine, a rarer situation, earlier obstructive symptoms are expected, with pain, vomiting, and rectal bleeding. In this case, the abdominal mass is more difficult to be identified at palpation, and the diagnosis is more difficult to attain. This form usually affects children older than 2 years, who usually have a disease that acts as a starting point for intussusception.

Computed tomography is an excellent diagnostic method when it presents the typical intussusception image, which is called the target image, with concentric layers of the invaginated intestine.

Intussusception, of which etiology has a fixed point, has an incidence of only 10% of cases, with Meckel's diverticulum being the most common (75% of cases), followed by intestinal polyps (15% of cases), and the remaining are divided into Henoch-Schonlein purpura, lymphoma, and ileal duplication.