

Case Report:

Ileo -ileal intussusception in an adult due to an Inverted Meckel's Diverticulum

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Abstract:

Intussusception with the Meckel's diverticulum is a rare but well-known cause of small bowel obstruction in an adult. Though intussusception is a relatively common condition especially in children, adult intussusception is less common and that too caused by an inverted Meckel diverticulum is still rare. We report a 22-year-old lady who presented to the Emergency Department with abdominal pain and vomiting. Based on clinical evaluation and US scan findings it was diagnosed as acute appendicitis. Exploration revealed an Ileo -ileal intussusception secondary to Inverted Meckel's Diverticulum. A diverticulectomy with small bowel resection was performed. Intussusception should be on the differential diagnosis in any adult patient with isolated abdominal complaints, and it should be recognized that it is likely secondary to an underlying pathology.

Key Words: Meckel Diverticulum, Intussusception, Inverted Diverticulum

Introduction:

Intussusception is invagination of usually a proximal segment of bowel (intussusceptum) into the lumen of the adjacent distal segment (intussusciens). While intussusception is relatively common in the childhood, it is infrequent in adults¹. Whereas most cases in childhood occur idiopathically, in adults, an underlying cause is present in 80% of cases². Causes include tumours and polyps as well oedema and fibrosis from recent or previous surgery, and sometimes unsuspected Meckel's Diverticulum. Missing a diagnosis of intussusception may lead to bowel necrosis, perforation, sepsis, and at times death. It is very essential to contemplate this diagnosis even in adults who do not present with the typical signs and symptoms of intussusception. Presenting a similar case who is beyond the conventional age and without having the classical symptom triad that is associated with intussusception.

Case Report:

A 22-year-old female presented to ER with the chief complaints of pain in the abdomen since 3 days and bilious vomiting which was started at periumbilical region and later migrated to right lower quadrant. Physical examination unremarkable: T-100°F, PR-89/M, BP-110/80mm Hg. The umbilical and right lower abdominal quadrants were tender. Per rectal examination nothing significant. Patient was managed initially with intravenous fluid resuscitation and nasogastric tube aspiration. Routine lab investigations including complete blood cell count, serum electrolytes, glucose, blood urea, creatinine, liver function tests and lipase were all normal. Erect abdominal x-ray revealed dilated small-bowel loops with air-fluid levels, but no gas under diaphragm. Ultrasonography of the abdomen reported the possibility of acute appendicitis based on the probe tenderness and minimal free fluid. CT

scan of the abdomen was unaffordable. During Laparoscopy appendix was found normal. Multiple dilated ileal loops with an abnormal deformity that appeared as a stricture. Procedure was converted to open lower midline laparotomy. At the exploration, the peritoneal cavity was filled with numerous dilated loops of small bowel. At approximately 90 cm from the ileo-cecal junction, there was an ileo-ileal intussusception. The intussusceptum was gently milked out surprisingly exposing a 5-cm ischemic Meckel's Diverticulum. The intussuscepted segment was oedematous and also appeared ischemic. Localized ileal resection enclosing the Meckel's diverticulum was undertaken. The postoperative recovery was uneventful, and the patient was discharged on the fifth day postoperatively. The pathological examination of the resected specimen showed a Meckel's diverticulum on the antimesenteric border of ileum with heterotrophic gastric mucosa.

Discussion:

Intussusception is a condition in which one portion of the bowel, usually proximal to the ileocecal valve, invaginates into an adjacent segment. This process leads to bowel wall edema which progressively causes obstruction of venous outflow. The bowel becomes secondarily ischemic, which can eventually lead to necrosis and perforation. It is relatively common in children and is the second most common cause of an acute abdomen in this age group. It is much less common in adults and accounts for less than 5% of cases of mechanical small bowel obstruction³. Ileocolic intussusceptions are the most common with ileoileal, cecocolic, colocolic, and, jejunojejunal, occurring rarely⁴. Although there are many lesions that give rise to intussusception, Meckel's Diverticulum is the most common⁵. It is present in up to 22% of the population, but only 4% of those will have a complication in their lifetime^{6,7}.

Complications, when they occur, are mostly bowel obstruction often due to intussusception, diverticulitis, and bleeding^{7,8}. Adults will have a variable presentation of intussusception, often with a chronic colicky pain and intermittent partial intestinal obstruction associated with nausea and vomiting⁹. Because of this variable presentation, the diagnosis is often late. All adult patients with intussusception will therefore require exploration. Resection is indicated in cases of large bowel intussusception, but reduction without resection may be an option in cases of small bowel involvement where the incidence of malignancy is less and no abnormality of the small intestine is observed¹⁰. Laparoscopy is reserved for cases of recurrent intussusception or doubtful reduction and children older than 3 years would not likely benefit from a laparoscopic approach because of a high incidence of a pathological lead point¹¹.

Conclusion:

It is worth reiterating to contemplate intussusception not only in the neonate and infant but also in the adolescent & adult patient especially who doesn't present with the typical signs & symptoms of intussusception. It may not be possible to establish the diagnosis pre-operatively sometimes even though US and CT scan often can pick up. Whether Laparoscopy or Laparotomy, patients require resection anastomosis of the small intestine including the diverticulum.





References

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