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Case Report

Intussusception in an Adult: An Unusual Presentation of Small Bowel Obstruction

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Abstract

A 20 years old patient was admitted to the surgical take with a sudden severe abdominal pain. Abdominal examination revealed severe tenderness in the epigastrium and RIF. Blood tests showed Neutrophilic Leukocytosis. CT scan was done and revealed small bowel intussusception with twisting of the bowel loops suggestive of closed loop obstruction. She underwent diagnostic laparoscopy + laparotomy, with intraoperative findings of jejuno-jejunal intussusception with an intraluminal polyp as a lead point and limited small bowel resection was attempted with side-to-side anastomosis. She was persistently tachycardic post-operatively, and developed fever with greenish vomiting. CT scan was done which showed Mesenteric Haematoma with Ischaemia, she was re-operated and 1.5m of gangrenous jejunum was found and was resected. Postoperatively the patient remained vitally stable. She was then discharged on D6 post-reopen laparotomy, and was followed up in the outpatient clinic with no complications. The polyp came back as a juvenile polyp.

Keywords: *Intussusception; Small Bowel Obstruction*

Introduction

Intussusception is quite uncommon in adults compared to the paediatric age group where it is one of the commonest cause of intestinal obstruction in toddlers and infants. Its incidence is 1.5 - 4 cases per 1000 live births [1]. In adults it has been estimated to be seen in 1 - 5% of all adult intestinal obstruction [2].

This paper discusses one of the presentations of adult intussusception, in a previously healthy young adult.

Case Presentation

A 20 years old patient with no significant medical background was admitted with severe epigastric pain, acute in onset, associated with continuous vomiting but no h/o fever or change in bowel habit.

Examination showed the patient to be tachycardic and dehydrated. She had tenderness in the epigastric area and RIF, but no peritoneal signs and no distension. Investigations showed Neutrophilic leukocytosis (WBC: 23 x 10^9/L, N:17.9 x 10^9/L).

Her CRP was 0.7 mg/L. Her RFTs were normal.

She received IV fluids and given her young age, an abdomen ultrasonography was arranged initially and showed intussusception (Figure 1), then to show the extent and site of intussusception a CT abdomen was done (Figure 2 and 3) which confirmed the diagnosis and reported as:

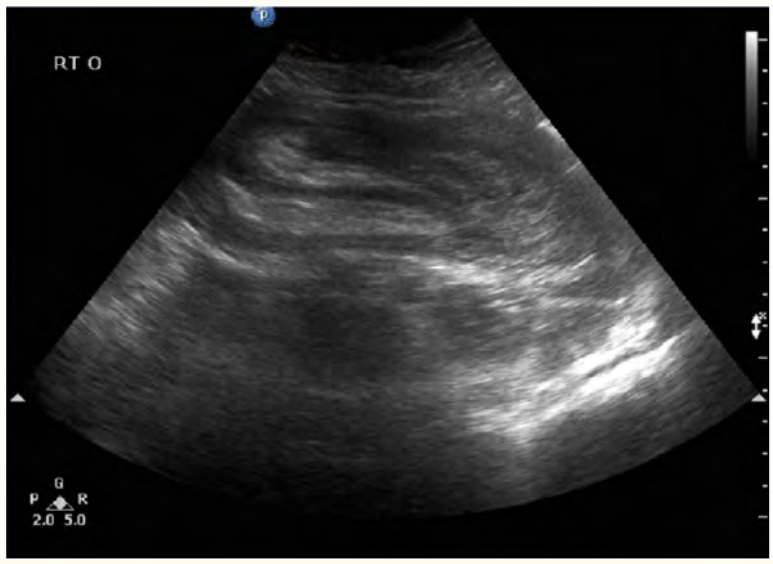

Figure 1: *USS showing the sausage shaped sign.*

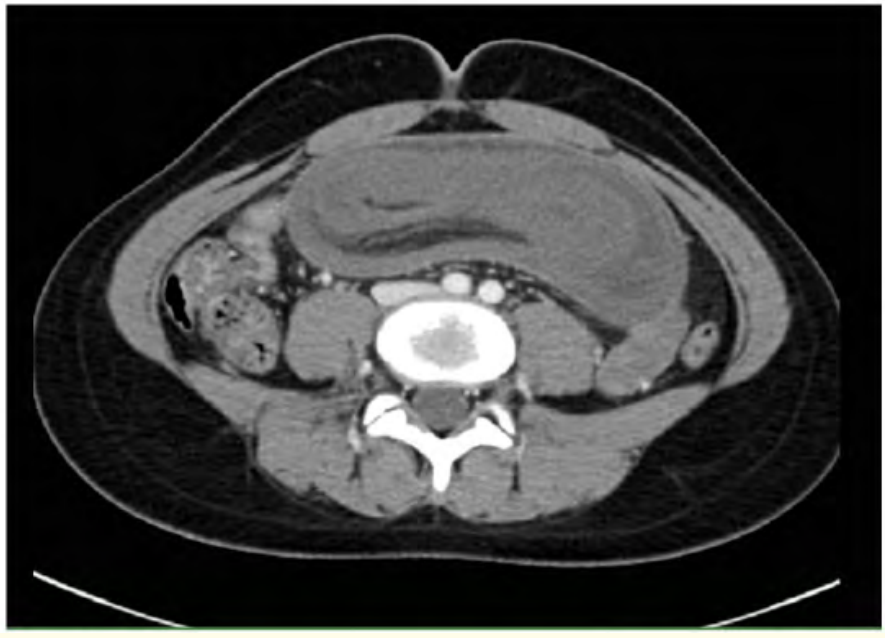

Figure 2: *CT showing the sausage shaped mass.*

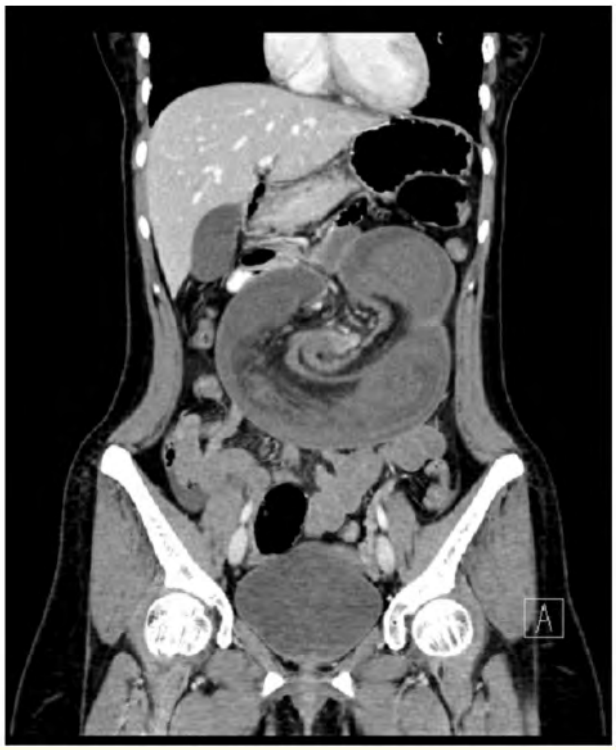

Figure 3: *CT – Coronal View showing the small bowel intussusception.*

"Small bowel intussusception with twisting of the bowel loops suggestive of closed loop obstruction associated with thickening of the intussuscepted bowel wall with decreased perfusion".

Patient was taken to theatre and was found to have twisting of the proximal small bowel with congested wall of the proximal jejunum and a jejuno-jejunal intussusception due to a polyp found at 50 cm from the DJ junction, there was no signs of gangrenous bowel, she underwent initially laparoscopic release of adhesions and attempted de-twisting, but due to technical difficulties it was converted to laparotomy. It was opted to go ahead with limited resection only as the bowel although congested was showing no signs of gangrene, and after warm saline and administration of 100% of oxygen, the bowel was pink in colour, and good mesenteric pulsation was present. and then laparotomy for small bowel resection (20 cm) with side to side anastomosis.

Post-laparotomy she has remained tachycardic and then started vomiting on D6 postop after having sips of water only, on D7 she started vomiting large amount of greenish vomitus. ABG and lactate were done and were both unremarkable.

D6 post-op patient was taken for another CT scan and it reported as:

"Significant amount of intra-abdominal air, intraperitoneal free fluid more than expected for day 6 post op. Evidence of small bowel obstruction with 2 transitional point at the ileal loop. Under-enhancement of the ileal loop on the left side of the abdomen is worrying of ischaemia. Features are suggestive of mesenteric haematoma".

Since the patient remained afebrile and was complaining only of mild abdominal pain it was decided to continue her conservative management, as she was clinically stable with only tachycardia.

On D8 postop, the patient started spiking fever, with the highest 38.2^{0}C. CBC was done and showed neutrophilic leukocytosis. She was taken to OT for a reopen laparotomy where it was found that 1.5 m of the jejunum was gangrenous , along with haemorrhagic fluid. The anastomotic site was intact. So resection of 1.5 m of jejunum was done.

She was recovering well postoperatively and improved drastically. She was discharged on D6 post-reopen laparotomy.

The histopathology report of the polyp came back as a juvenile polyp.

The patient was followed up until 2 months postoperatively and she was doing well, she denied any complaints of abdominal pain and her wound has healed.

Discussion

Intussusception in its original sense means, 'absorption'; it is derived from modern Latin intussusceptio(n-), from Latin intus 'within' + susceptio(n-) (from suscipere 'take up') [3].

It was first reported in 1674 by Barbette of Amsterdam [4]. It is a surgical emergency, defined by invagination/telescoping of the proximal bowel (the intussusceptum) into the distal bowel (the intussusception) [5].

Intussusception is much more common in the Paediatrics age group. It is quite uncommon in adults and only few general surgeons see few cases or even one during their surgical career [6]. As a result adult intussusception can be easily missed, and undiagnosed cases result in significant morbidity, hence recognizing the condition earlier is quite important for clinicians [7].

The most common locations are at the junctions between freely moving segments and retroperitoneally or adhesionally fixed segments [8].

It is reported that the majority of adults have a preceding history of intermittent abdominal pain and vomiting for upto 1 month [9]. The most common presenting symptoms in adults are crampy abdominal pain (71%), nausea and vomiting (68%), abdominal distention (45%), and tenderness (60%) consistent with partial obstruction [10].

Unlike in children, 90% of adult cases have a lead point, and only 10% are reported to be idiopathic [11].

Less common aetiologies that have been reported include postoperative factors such as; adhesions, suture line, intestinal tubes [11].

It has been reported that most intussusception occurs in the small bowel, and it's usually benign, while the majority of lead points in the large bowel are malignant.

In one study Zubaidi., *et al*. a retrospective study done at two major hospitals in Winnipeg, Canada during the years 1989 - 2000, 22 cases of adult intussusception was identified with 14 cases being enteric, 2 ileocolic and 6 colonic. Out of those only 3 were found to be idiopathic [12]. It is argued that in patients with large bowel intussusception resection without attempting reduction should be done because of the high chance of malignancy, however exception to that rule is the case of a sigmoid-rectal intussusceptions, in which reduction prior to resection might save the patient from undergoing an abdomino-perineal resection.

Learning Points

1. Intussusception is uncommon in adults, and can be quite a challenge for surgeons.
2. Clinical presentation in adults varies from acute to intermittent to chronic [13]. Not all cases in adults would present as an acute-onset intestinal obstruction [2].
3. Unlike in children, it's important to identify a leading point, and send it for histopathology to rule out cancer..

Bibliography

1. Michael S Irish., *et al*. "Pediatric Intussusception Surgery". *Medscape* (2017).

2. Wei Hwang Wan., *et al.* "Diagnosis and laparoscopic management of adult intussusception". *ANZ Journal of Surgery* 79.4 (2009): 294-295.

3. http://www.oxforddictionaries.com/definition/english/intussusception

4. de Moulin D. "Paul Barbette, M.D.: A seventeenth-century Amesterdam Author of best selling textbook". *Bulletin of the History of Medicine* 59.4 (1985): 506-514.

5. Oxford Handbook of Clinical Surgery 4th Edition.

6. Erkan N., *et al.* "Intussusception in adults: an unusual and challenging condition for surgeons". *International Journal of Colorectal Disease* 20.5 (2005): 452-456.

7. RA Lindor., *et al.* "39: Intussusception in Adults: A 148-Patient Experience". *Annals of Emergency Medicine* 54.3 (2009): S13.

8. Sachs M and Encke A. "Enteroenterale invagination des dunndarms beim erwachsenen". *Langenbecks Archiv fur Chirurgie* 378.5 (1993): 288-291.

9. JM Prater and FC Olshemski. "Adult intussusception". *American Family Physician* 47.2 (1993): 447-452.

10. EL Felix., *et al.* "Adult intussusception, case report of recurrent intussusception and review of the literature". *American Journal of Surgery* 131.6 (1976): 758-761.

11. Haas Eric M., *et al.* "Adult intussusception". The American Journal of Surgery 186.1 (2003): 75-76.

12. Ahmad Zubaidi., *et al*. "Adult Intusscupetion: A retrospective Review". *Journal of Diseases of the Colon and Rectum* 49.10 (2006): 1546-1551.

13. Michele Amoruso., *et al.* "Idiopathic adult colo-colonic intussusception: Case report and review of the literature". *International Journal of Surgery Case Reports* 4.4 (2013): 416-418.

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