

Post-Myomectomy Intussusception: Report of Two Cases

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ABSTRACT

BACKGROUND: Post-myomectomy intussusception is a very rare cause of post-operative intestinal obstruction in adult surgical practice. Preoperative diagnosis is usually missed or delayed because the symptoms are usually subacute and nonspecific.

METHOD: The case notes of the patients were retrieved and relevant data extracted and summarized. An extensive literature search was done and results reviewed and compared with the present case.

RESULTS: The two patients reported developed features of post operative intestinal obstructions which were thought to be due to adhesive bands and initial conservative managements instituted. Exploratory laparotomies later revealed ileo-ileal and jejuno-ileal intussusceptions which were reduced without resection with good outcome.

CONCLUSION: Intussusception is a rare but serious complication of myomectomy. High index of suspicion with prompt intervention and early team management optimize outcomes.

KEY WORDS: Intussusception, Myomectomy, Postoperative intestinal obstruction

into: entero-enteric, colo-colic, ileo-colic and ileo-cecal. It can also be classified according to etiology as: inflammatory lesions, diverticulum, postoperative adhesions, lipoma, polyps, lymphoma and metastases. Malignant aetiology accounts for up to 30% of entero-enteric intussusception while large bowel intussusceptions are usually malignant.^{3,4,5} Kim et al⁶ further classified adult intussusceptions according to the presence or absence of a lead point. We present the two cases of post-myomectomy intussusceptions that we managed in Enugu.

CASE 1 SUMMARY

Mrs. U O L was a 33-year old para0¹² woman who presented in Semino Specialist Hospital and Maternity Abakpa-Nike Enugu on 1/2/2012 with six months history of heavy menstrual flow and an abdominal ultrasound diagnosis of uterine fibroid. There was no history of vomiting, constipation or recent change in bowel habits. She was not clinically pale. The pulse rate and blood pressure were 72bpm and 110/70mmHg respectively. The lower abdomen was enlarged with a firm mobile pelvic mass of about 20 week's pregnancy size.

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INTRODUCTION

Intussusception is the invagination of a proximal segment of the bowel, the intussusceptum, into the lumen of the adjacent distal segment, the intussusciens. Barbet of Amsterdam reported the first case in 1674 while Sir Jonathan Hutchinson was the first to operate on a child with intussusception in 1871. Most intussusceptions in children are idiopathic and simple reductions are sufficient treatment in most of cases. Adult intussusception accounts for 5% of all cases of intussusception and it is responsible for only 1-5% of intestinal obstruction in adults.¹ Ninety percent (90%) of the cases of adult intussusceptions are secondary to pathologic conditions that serve as lead points such as carcinomas, diverticulum, adhesions or benign neoplasms which are usually discovered intraoperatively² and because of this, surgical resection is often the treatment of choice in adult intussusceptions. Complications of adult intussusception include: intestinal obstruction, haemorrhage, gut strangulation, septicaemia and shock. It can be classified according to their locations

The results of her laboratory investigations showed a Packed Cell Volume (PCV) of 25%, blood group A Rhesus D positive, and the retroviral screening test was negative. The abdominal ultrasound report showed a large fibroid-like submucosal nonhomogenous mass 136mm x 76mm in the fundal region that displaced the thickened endometrial echo upwards and leftward. Other abdominal organs were normal. She was transfused with two units of blood and the post transfusion PCV was 32%. She was counseled and booked for myomectomy on 7/2/2012. The intra-operative findings were: a soft fibroid uterus of about 20cm long, a huge and oedematous intramural uterine fibroid extending antero-posteriorly and displacing the endometrial cavity upward and leftward, normal fallopian tubes and ovaries, estimated blood loss of 400mls. The fibroid mass was removed after applying the tourniquet in place and the endometrial cavity was opened superiorly and sutured with chromic catgut-size O. Haemostasis was achieved by meticulous obliteration of the dead space created by the fibroid with chromic catgut size 2. An abdominal drain was left in-situ due to mild oozing from the site. There was no intra operative blood transfusion.

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The first day postoperative vital signs, and the input-output fluid charts were satisfactory. The abdominal drain yielded 250mls and 400mls of blood on the first and second post operative days respectively. She vomited once on the second postoperative day. On the third postoperative day, she passed flatus, bowel sound was present and she commenced oral drugs and fluid. The vomiting, however, continued especially after oral feeding and was projectile of greenish fluid and now associated with colicky abdominal pain and slight abdominal distension. The abdominal drain became profuse yielding urine-like fluid of more than 700mls in 24 hours. On the 6th postoperative day, her PCV was 30%. She was reviewed by a urologist who suspected ureteric injury with urinary peritonitis. Further investigations and review on 10th postoperative days showed: essentially normal serum urea, electrolyte, and creatinine, and intact ureters on intravenous urography. An abdominal Xray/abdominopelvic ultrasound showed grossly distended bowels suggestive of intestinal obstruction, moderate haemoperitoneum / pelvic abscess, and a bulky anteverted non-gravid uterus.

A diagnosis of adhesive intestinal obstruction was then made and she was booked for exploratory laparotomy on 18/2/2012. The operative findings were: grossly distended small intestine and flimsy adhesions, a viable 10 cm ileo-ileal intussusception without a lead point at about 160cm from ileocaecal junction (Figure 1), intact ureters which were confirmed by injecting 2mls of sterile gentian violet with 23G needle into each ureter without any peritoneal spillage of the dye (the dye was found in urine bag), anteverted uterus with no bleeding point from previous uterine incisions, and estimated blood loss of 200mls.



Figure1:10cm long ileo-ileal intussusceptions 160cm from the ileocaecal junction

The Intussusception was reduced after adhesiolysis and the peritoneal cavity was washed with one litre of warm normal saline. The abdominal drain was left in situ.

Her postoperative recovery was uneventful. On the 2nd postoperative day she passed both flatus and stool and the abdominal drain and nasogastric tube were removed. She commenced oral feeding. The postoperative PCV was 28% and she was discharged home after removal of the skin sutures on the 10th postoperative day on oral haematinics. She was reviewed in the clinic after one month and she was in good health. Her PCV was 32%.

CASE 2 SUMMARY

Miss U I was a 27 year old woman who presented at Enugu State University Teaching Hospital (ESUTH) Parklane, Enugu with suprapubic abdominal swelling of six years duration. A diagnosis of a giant uterine fibroid was made and she was counseled for myomectomy. She was clinically stable with a PCV of 34% and normal serum electrolytes, urea and creatinine results. The intraoperative findings on 17/2/2012 were: multiple intramural and submucous uterine fibroids of varying sizes distorting the anatomy of uterus and right tube with a posterior pedunculated fibroid mass of 20x20x15cm³ attached to the right cornual end, normal tubes and ovaries, and estimated blood loss of 800mls. An abdominal drain was left in situ and she received 2 units of blood transfusion on the day of operation. The weight of the 23 fibroids of various sizes was 19.5kg.

The first day postoperative vital signs, and input-output fluid charts were satisfactory. The abdominal drain yielded 200mls of blood each day for the first 4 days. She passed flatus on the 2nd postoperative day and vomited once the same day. The vomiting however continued on the 3rd postoperative day and was associated with colicky abdominal pain and abdominal distension. A diagnosis of postoperative intestinal obstruction secondary to adhesions was made on the 4th postoperative day. A general surgeon was invited who started conservative management by inserting nasogastric tube while intravenous antibiotics and fluids were continued. She was transfused another 2 units of blood on the 4th postoperative day. An urgent transabdominal ultrasound showed multiple dilated fluid filled loops of bowel showing no peristaltic activity. Plain abdominal X-ray revealed multiple air fluid levels.

A diagnosis of postoperative intestinal obstruction was made. She was booked for exploratory laparotomy on 27/2/2012 with the co-managing surgical team. The operative findings were: distended small intestines, haematoma between posterior part of uterus and ileum, multiple intraperitoneal fibrinous adhesions, Jejunio-ileal intussusception (Figure 2), healing bulky uterus with no active bleeding point, and estimated blood loss of 300mls

Figure2: Showing intraoperative Jejunio-ileal intussusception

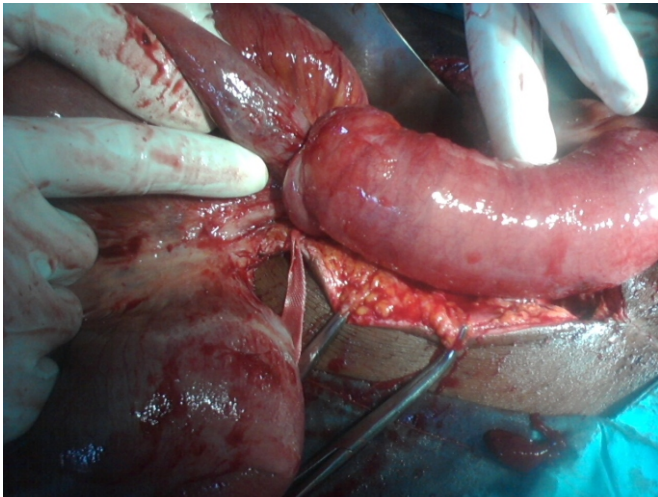


Figure2: Showing intraoperative Jejunum-ileal intussusception

The intussusception was reduced by retrograde milking and the gut was found viable with no obvious pathology. Adhesiolysis was done and peritoneal washout carried out with 2L of normal saline.

Her post op recovery was uneventful. The postoperative PCV was 30%. Skin sutures were removed on the 10th postoperative day and she was then discharged home in good health. She was seen after three weeks and in good health. She was satisfied with the care she received.

DISCUSSION

The exact mechanism of intussusceptions is unknown. It is believed that factors that alter normal peristaltic activity trigger the invagination of one segment of the bowel into the other.^{3,5} It usually takes place at the junctions between freely moving segments and adhesively fixed segments of the intestines.⁷

The clinical presentation of adult intussusception varies considerably.⁸ The classical pediatric presentation of acute intussusception of a triad of: cramping abdominal pain, bloody diarrhea and a palpable tender mass is rare in adults. Nausea, vomiting, constipation and abdominal distension as seen in the cases reported are the nonspecific symptoms and signs of adult intussusceptions.^{2,4} The signs and symptoms of adult intussusceptions are usually less acute than in children⁹ and these delayed early diagnoses in our cases until exploratory laparotomies were done on the 11th and 10th postoperative day respectively. These delays in surgical intervention were also reported by previous authors.^{9,10} Ademiluyi in 1987⁹ stressed that the most important factor for arriving at an early diagnosis is high index of suspicion of intussusception in any patient with features of subacute intestinal obstruction.

Case 1: Presented a puzzling and worrisome profuse yellowish urine-like peritoneal fluid of over 700mls in 24 hours that made even an urologist to strongly suspect

ureteric injury even after intravenous urogram reported intact ureters. We used intraoperative injection of ureteric dye to convince ourselves that there was no damage to the ureters. This buttresses the varied, atypical and nonspecific presentations of adult intussusceptions. The profuse peritoneal fluid stopped immediately the intussusception was reduced. The fluid in the grossly distended small intestine may have filtered through the intestinal wall into the peritoneal cavity.

Abdominal ultrasound and plain x-ray were used to make diagnosis of intestinal obstruction in our cases. Preoperative diagnosis of intussusception is possible when the pathology is suspected early and diagnostic facilities like abdominal CT and ultrasound are available. The “target”, “doughnut”, “pseudo-kidney” and “hay-fork” are ultrasound signs that an experienced radiologist can use to make a preoperative diagnosis of intussusceptions.⁶ Abdominal computed tomography (ACT) is currently considered the most sensitive radiologic method to confirm intussusceptions,¹ but abdominal CT was not readily available and not used in our patients. Kim et al⁶ used abdominal CT to distinguish between intussusceptions without a lead point from that with a lead point and this may help in reducing the number of unnecessary surgical resections. Flexible endoscopy of the lower GI tract is a useful tool in evaluating cases of intussusception presenting with subacute or chronic large bowel obstruction⁴.

The treatment of adult intussusceptions is surgical intervention but the extent of surgery is controversial.⁵ Reduction and adhesiolysis, as we did in our patients, are recommended in postoperative bowel obstruction due to intussusceptions without lead points, provided the bowels are viable.¹ Idiopathic adult intussusceptions is common in Nigeria,^{8,9} and most surgeons however, advocate bowel resection without reduction of adult intussusception to avoid malignant tumor or microorganism disseminations.^{1,3}

In conclusion, post-myomectomy adult intussusception is a rare cause of intestinal obstruction. Preoperative diagnosis is usually missed or delayed because the symptoms are usually subacute and nonspecific. High index of suspicion; availability of abdominal CT and ultrasound are essential for early diagnosis and prompt intervention. Although adult intussusception is frequently associated with malignant lesions and surgical resection is advocated; reduction and adhesiolysis as done for the cases reported are enough treatment in postoperative adult intussusceptions when the bowel is viable and without pathological lead point.

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