EUROPEAN JOURNAL OF BIOMEDICAL AND PHARMACEUTICAL SCIENCES
http://www.ejbps.com

ISSN 2349-8870
Volume: 3
Issue: 10
498-501
Year: 2016

ADULT BOWEL INTUSSUSCEPTION WITH OBSTRUCTION AND PERFORATION PERITONITIS: A RARE CASE REPORT

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Article Received on 20/08/2016 **Article Revised on 11/09/2016** **Article Accepted on 02/10/2016**

ABSTRACT
Intussusception is defined as telescoping of proximal segment of gastrointestinal tract into the distal segment. This occurs rarely in adults (less than 5%) and more commonly encountered in children. Accurate diagnosis is difficult. It is a life threatening emergency when associated with complications of bowel obstruction and perforation. Prompt surgical intervention is required in emergency situations with resection of non viable bowel and anastomosis .Here we report a case of 30 year old male presenting with ileoileocolic intussusception that presented at our institution and was managed appropriately.

KEY WORDS: Intussusception, ileoileocolic, resection, anastomosis.

INTRODUCTION
Intussusception is the telescoping of a proximal segment of bowel wall into the lumen of an adjacent, usually distal segment. Adult intussusception represents 1% of patients with bowel obstructions and 5% of all intussusceptions. Intussusception presents acutely in adults.[1] Clinical symptoms (classic triad: vomiting, rectal bleeding, and abdominal pain occurs in only 15%–20% of adults.[2] Plain abdominal films are typically the first diagnostic tool, since in most cases the obstructive symptoms dominate the clinical picture. Such films usually demonstrate signs of intestinal obstruction and may provide information regarding the site of obstruction. Ultrasonography is considered a useful tool for the diagnosis of intussusception. Almost 90% of the cases of intussusception in adults are secondary to a pathologic condition that serves as a lead point.70 to 90% of adult cases of intussusception require definite treatment, of which surgical resection is most often, the treatment of choice.[3]

CASE REPORT
30 year old male patient presented to emergency of our hospital with chief complaints of pain abdomen since 3-4 days that was sudden in onset and gradually progressive in nature associated with multiple episodes of vomiting and constipation. On clinical examination abdomen was massively distended with guarding and rigidity and absence of bowel sounds. Patient was thoroughly investigated for the same and the investigations (x-ray abdomen erect view revealed multiple air fluid levels with air under both the domes of diaphragm and ultrasound abdomen revealed gas and fluid filled gut coils with oedematous wall and fluid with echoes in the pelvic region (peritonitis). After taking informed consent for surgery exploratory laparotomy was undertaken. A midline vertical upper abdominal incision was given and deepened. A 0.5cm distal ileal perforation with ileoileocolic intussusception distal to perforation was revealed .Mobilisation of caecum and ascending colon was done up to hepatic flexure along with mobilisation of distal ileum up till perforation site. Resection of the affected part (right hemicolectomy) was done followed by ileotransverse anastomosis in four layers with vicryl 2-0 sutures and seromuscular silk 3-0 sutures .Hemostasis was ensured. Abdominal drain was placed in pelvis and wound was closed in layers. Postoperative period was uneventful and patient condition gradually improved. Patient was discharged on 11th postoperative day under satisfactory condition after he resumed normal diet orally. No complication was seen in follow up period.

Fig.1- X-ray abdomen erect view showing multiple air fluid levels and air under both domes of diaphragm.

Name karan Singh 30Yrs M

LIVER:: Liver is normal, margins are smooth & regular. I.H.B.T. are not dilated. C.B.D. is within normal limits. Parenchyma shows uniform echo texture. No SOL is localised. Movements of rt. dome of diaphragm are restricted.

GALL BLADDER:: G. B. is normal in size & shows thick walls. Lumen is echo free. No hyper echoic particle or acoustic shadow seen.

Pancreas is overshadowed by gas filled gut coils.

KIDNEYS: Both kidneys are normal in size, shape, position & outline. Renal cortical thickness is normal. Corticomedullary margins are regular. No hydronephrosis seen. No renal calculus seen.

Ureters are not dilated.

URINARY BLADDER: UB is partially distended. Walls are regular. Lumen is echo free. No calculus seen.

Prostate :- Prostate gland is normal in size & shows uniform echo pattern. No SOL is localised.

HRSG:- Gas & fluid filled gut coils having oedematous walls are seen. Fluid with echoes is seen in pelvic region.

IMP: Sonological appearances are suggestive of:-
1- *Thick walled GB.*
2- *Gas & fluid filled gut coils having oedematous walls.*
3- *Fluid with echoes in pelvic region. (Peritonitis)*

X-ray abdomen standing:- Multiple air fluid levels are seen Air is seen under both domes of diaphragm –Intestinal obstruction with perforation.

Fig.2. -USG and x-ray abdomen report.

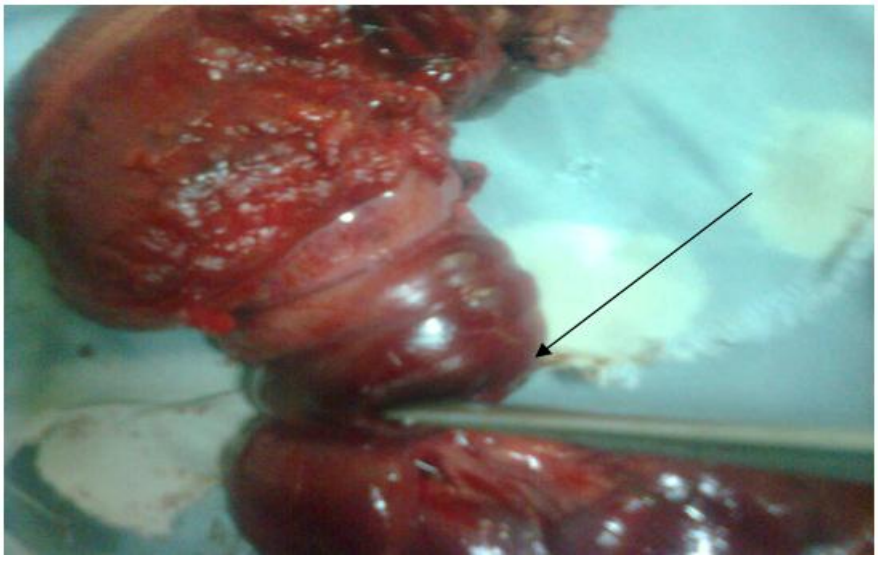

Fig.3-Operative specimen showing intussusception

Name: Karan

Age/Sex: 30yr/M

OPD/CR No: 50651/243923/328097

Ward/OPD: Surgery

Histopath No: 2172/11

SPECIMEN: Terminal ileum and ascending colon.

GROSS:
Received a segment of intestine measuring 23cms long with small intenstine measuring 10cms. Large intestine measures 13cms. Cut section small intestine is unremarkable. The small intestine is seen telescoping into the large intestine. Both the resected margins appear to be viable. The tip of the intusseptum is gangrenous and mucosa covered with exudate.

MICROSCOPIC EXAMINATION:
Sections from the intusseptum shows hemorrhage, necrosis & acute inflammatory infiltrate. Sections from the large intestine & the resected margins are unremarkable. Sections from the appendix show lymphoid hyperplasia.

OPINION:
Features are consistent with clinical diagnosis of intussuception.

Fig.4-Histopathology report of the resected specimen

DISCUSSION

Intussusception was first reported by Barbette of Amsterdam in 1674 later by John Hunter in 1789. Sir Jonathan Hutchinson was the first surgeon who operated intussusception on a child in 1871.[4] Adult intussusception represents 1 % of all bowel obstructions, 5% of all intussusceptions and 0.003%-0.02% of all hospital admissions. Intussusception is a different entity in adults than it is in children [1].Abdominal pain is considered to be the most common symptom, presenting in 70-100% of cases.[5] Clinical symptoms (classic triad: vomiting, rectal bleeding and abdominal pain) are usually present in children and occur in only 15%–20% of adults.[2] The majority of adult patients have entero-enteric intussusception, but some have intussusception involving the colon whereas majority of children have ileocolic intussusceptions.[6] About 10% of small bowel intussusceptions in adults are idiopathic whereas majority (90%) in children are idiopathic.[7] Plain abdominal films are typically the first diagnostic tool, since in most cases the obstructive symptoms dominate the clinical picture. Such films usually demonstrate signs of intestinal obstruction and may provide information regarding the site of obstruction.[3] Ultrasonography can provide the correct diagnosis in some cases.[8] The diagnosis of this condition is often made by using abdominal CT scan. It is the most useful diagnostic tool with a diagnostic yield of around 78%, and it also helps in identifying the underlying cause. A “target sign” may be seen on the sagittal view of the abdominal CT. The distended loop of bowel appears thickened; representing two layers of bowel.[9] Adult intussusception warrants

laparotomy rather than attempts at hydrostatic reduction in view of the high incidence of underlying abnormality.[2] Primary resection is recommended whenever possible. Reduction should not be attempted if signs of bowel ischemia or inflammation are present. Hamid Ghaderi et al. in their study on clinical presentations, diagnosis and treatment of adult intussusception, a 20 years survey showed that all patients underwent resection and anastomosis with good surgical outcomes.[4] Hence surgical treatment is required in all patients and there is more emphasis towards resection without reduction in most cases.[2]

CONCLUSION

Adult bowel intussusception is a rarely encountered condition. Diagnosis is delayed in some cases that may complicate the condition. However modern diagnostic modalities (CT scan) play a major role in prompt diagnosis and decision making. In acute cases presentation with bowel obstruction and perforation peritonitis warrants urgent laparotomy along with primary resection and anastomosis of the affected bowel segment. As relevant to our case where a 30 year old male presented to emergency of our hospital and underwent exploratory laparotomy revealing ileoileocolic intussusception that was managed by resection of the affected segment with ileotransverse anastomosis we conclude that surgical intervention is the treatment of choice in adult intussusception, the delay in which can terminate in a catastrophic event.

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