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ADULT IDIOPATHIC INTUSSUSCEPTION: A RARE CASE REPORT

[1]Dr. Sachin Tribhuwan, [2]Dr. Amongla Imchen*, [3]Dr. Sreejith V., [4]Dr. Keisham Lokendra Singh, [5]Prof. G. S. Moirangthem

[1,2,3]Junior Resident, Regional Institute of Medical Sciences.
[4]Senior Resident, Regional Institute of Medical Sciences.
[5]Prof. and Head of Unit, Regional Institute of Medical Sciences.

Corresponding Author: Dr. Amongla Imchen
Junior Resident, Regional Institute of Medical Sciences.

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ABSTRACT
Idiopathic intussusception is a rare condition in adults and accounts for less than 0.1% of all adult hospital admissions. Adult intussusception as a cause of intestinal obstruction is seen only in 1-2% of all cases of bowel obstruction. In view of its non specific presentation, it is very difficult to diagnose such lesion. We herein report a case of young male patient presenting to the emergency department with features of small bowel obstruction associated with pain abdomen and vomiting. In view of features suggestive of peritonitis, the patient was subjected to emergency laparatomy and diagnosis of ileo-ileal intussusception with gangrenous changes of the involved segment was made. Resection of the involved segment with end to end anastomosis was performed. Histopathological (HPE) examination of resected specimen showed inflammatory infiltrate with areas of necrosis. We also highlight clinical presentation, types and treatment modalities available in the literature.

KEYWORDS: adult idiopathic intussusception, bowel obstruction, segmental resection.

CASE REPORT

A 21 yr old male patient presented to emergency department with features of constipation associated with pain abdomen and vomiting since 2 days. On general physical examination patient was dehydrated and was resuscitated with IV fluids. On per abdominal examination, abdomen was distended with diffuse tenderness. No mass per abdomen was palpable. On digital rectal examination, no bleeding per rectum was found. After stabilisation, the patient was subjected to xray abdomen erect (figure1) and ultrasonography of the abdomen which showed multiple air fluid levels and features of small bowel obstruction respectively. In view of features suggestive of generalised peritonitis, the patient was subjected to exploratory laparotomy, which revealed ileo-ileal intussusception with gangrenous changes of the involved segment (figure 2 and 3). Segmental resection was done of involved segment which was approximately 35 cm in length and around 5 cm from the ileo-caecal junction and was subjected to histopathological examination. HPE showed markedly congested intestinal segment with inflammatory infiltrate with some areas of infarction (figure4).

There was no evidence of lymphoid hyperplasia, granuloma or malignancy in the section studied.

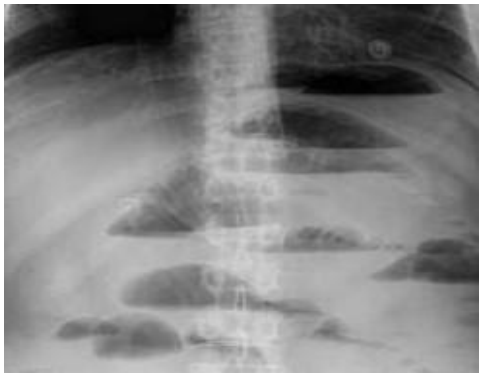

Fig 1: CXR- showing multiple air fluid level

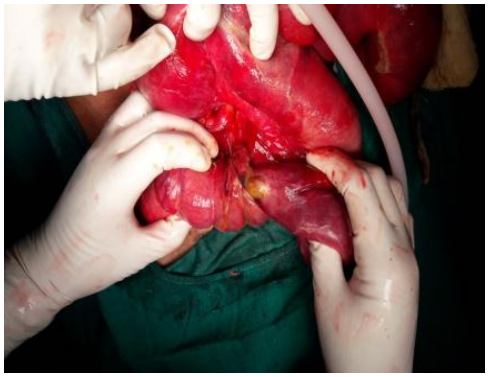

Fig 2: ileo ileal intussusception before reduction

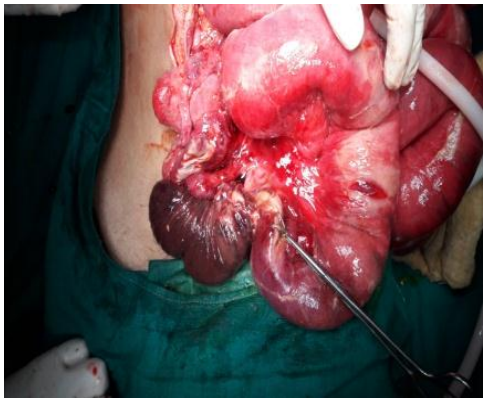

Fig 3: gangrenous segment after reduction

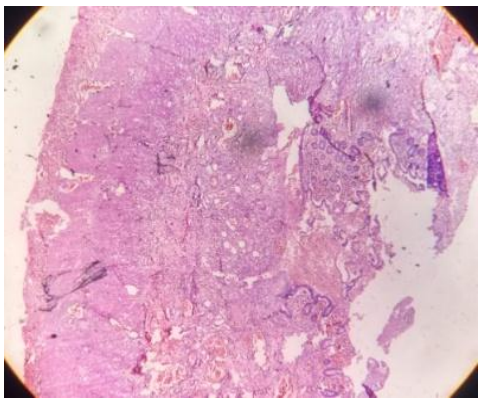

Fig 4: HPE showing inflammatory infiltrate with areas of necrosis

INTRODUCTION

Intussusception is the telescoping of one segment of bowel into an adjacent one[1] and accounts for less than 0.1% of all adult hospital admissions.[2]

The exact mechanism that causes intussusceptions in adult is still unknown, but is generally thought to be due to any lesion in the bowel wall or irritant within the bowel lumen which may cause hyperactive peristaltic pattern resulting in invagination of one segment of bowel into adjacent segment.[3]

Intestinal Intussusception is common in children, only about 5 to 10 per cent of cases occur in adults. In contrast to children, it is a rare cause of abdominal emergency in adults representing 1-2 % of all bowel obstructions.[4]

90% of the cases in infants and children are idiopathic, whereas in adults, an underlying pathology is identified in about 90% of the cases.

Furthermore, intussusception in adults differs from that in childhood in etiology, presentation, diagnosis and treatment. The classical diagnostic triad of abdominal pain, red currant jelly stools and sausage shaped mass is rarely found in adults.

Controversy still exists about the management of such patients. However, surgical treatment is necessary to relieve obstruction and exclude malignancy.[5]

DISCUSSION

Intussusception is defined as the telescoping or invagination of one segment of bowel into adjacent one. The mechanism for initiation of the invagination is not clear.

It is classified into four categories: (1) entero-enteric (2) colo-colic (3) ileo-colic and (iv) ileo-caecal.

Intussusception may be primary /idiopathic and secondary – which may be secondary to benign or malignant lesions including carcinoma, colonic diverticula, Meckel's diverticulum, adenomatous polyps, melanoma Idiopathic intussusception in the small bowel accounts for 8% to 20% of all cases.[6]

Clinical features in adults are mostly non-specific and long standing. Most of the series report pain as the most common symptom, which is seen in 70% to 90% of the cases, with vomiting and bleeding per rectum as the next most common symptom.[7] Pain is characteristically periodic and intermittent in nature, which makes the diagnosis even more difficult and delayed. Abdominal mass is seen in about 25% to 40% of cases.[8]

Our patient presented with features of small bowel obstruction with no bleeding per rectum. No abdominal mass was palpable. Because of its non specific presentation, diagnosis is difficult in adults. Accurate preoperative diagnosis has been reported in only about 50% of the cases.[9]

Plain abdominal films are commonly the first investigation,which usually shows: multiple air fluid levels . Barium enema examination in colo-colic or ileo-colic intussusception, may show a 'cupshaped' filling defect or 'spiral' or 'coil-spring' appearance[10]

Ultrasonography is a useful investigation for the diagnosis of intussusception, both in children and in adults.[11] The classical imaging features include the 'target' or 'doughnut' signs in the transverse view, and the 'pseudo-kidney' sign or 'hay fork' sign in longitudinal view. Abdominal computed tomography (CT) is currently considered as the most sensitive radiological method to confirm intussusception and characteristic features include a heterogeneous 'target' or 'sausage shaped' soft tissue mass with layering effect.

There is no universal approach to the treatment of adult intussusception, but most authors suggest that patients with diagnosis of intussusception require laparotomy. There is varied opinion regarding primary resection or attempted reduction before resection. Some recommend selective reduction before resection especially in small bowel intussusception because in most of the patients the lead point is a benign disease. Reduction of the

intussuscepted bowel is considered safe for benign lesions in order to limit the extent of resection and to avoid the short bowel syndrome but at the same time there should be high index of suspicion for malignancy and this could be proven on frozen section if facilities are available. In clinical situations when the viability of bowel is in doubt or obviously gangrenous, then resection of segment is a valid approach. Based on a high incidence of an underlying malignancy, which may be difficult to confirm intra operatively, many authors recommended primary resection with oncological principles in large bowel intussusception.[12]

CONCLUSION

A rare case of idiopathic ileo-ileal intussusception in adult in a male patient of 21 yr old who presented to us with features of small bowel obstruction has been reported. Emergency laparatomy and resection of gangrenous portion of intussusceptions and end to end anastomosis has been performed. The post operative HPE revealed markedly congested intestinal segment with inflammatory infiltrate with some areas of infarction and no evidence of lymphoid hyperplasia, granuloma or malignancy in the section studied. The post operative recovery of patient was uneventful and discharged fit on 8th post operative day.

Intussusception in adults is a rare condition and poses great difficulty in diagnosis. High index of suspicion is required for early diagnosis and should always be kept in mind as differential diagnosis for intestinal obstruction in adults. CT scan is promising diagnostic tool to establish pre-operative diagnosis of intussusception and early surgical resection can achieve better outcomes. Small bowel intussusception can be reduced before resection if there is no doubt of bowel viability.

REFERENCES

1. Gayer G, Apter S, Hofmann C, et al. Intussusception in adults: CT diagnosis. Clin Radiol, 1998; 53: 53–7.
2. Gordon RS, O'Dell KB, Namon AJ, et al. Intussusception in adults—a rare disease. J Emerg Med., 1991; 9: 337–42.
3. Takeuchi K, Tsuzuki Y, Ando T, Sekihara M, Hara T, Kori T, et al. The diagnosis and treatment of adult intussusceptions. J Clin Gastrenterol, 2003; 36: 18-21.
4. Sheehan E, O'Sullivan GC. Intussusception in adults: a rare entity. Ir J Med Sci., 2000; 169: 150.
5. Begos DG, Sandor A, Modlin IM. The diagnosis and management of adult intussusception. Am J Surg, 1997; 173: 88-94.
6. Azar T, Berger DL. Adult intussusception. Ann Surg, 1997; 226: 134–8.
7. Reijnen HA, Joosten HJ, De Boer HH. Diagnosis and treatment of adult intussusception. Am J Surg, 1989; 158: 25–8.
8. Stubenord WT, Thorblamarson B. Intussusception in adults. Ann Surg, 1970; 172: 306–10.
9. Reijnen HA, Joosten HJ, de Boer HH. Diagnosis and treatment of adult intussusceptions Am J Surg., Jul 1989; 158(1): 25–8.
10. Zubaidi A, Al-Saif F, Silverman R. Adult intussusception: a retrospective review. Dis Colon Rectum, Oct; 2006; 49(10): 1546–51.
11. Fujii Y, Taniguchi N, Itoh K. Intussusception induced by villous tumor of the colon: sonographic findings. J Clin Ultrasound, Jan, 2002; 30(1): 48–51.
12. Erkan N, Haciyanli M, Yildirium M, Sayham H, Vandar E, Polat AF. Intussusception in adults; an unusual and challenging condition for surgeons. Int J Colorectal Dis, 2005; 20: 452-56.