

obstruction. Majority of intusussception in adults are secondary to a primary lesion which acts as a lead point. CT is the gold standard of diagnosing intusussception in adults and most of them require surgery. Herein we share our experience of managing adult intussusceptions in a tertiary referral university hospital.

# **KEYWORDS**:

## INTRODUCTION

Intususseption is very common in infants and has a very classical clinical presentation. 95% of intussusceptions occurs in infants. Adult intussusceptions account for only 5% of all intussusceptions, and account for 1%-5% of intestinal obstruction(1). Unlike infants, 90% of intussusceptions occurs secondary to a pathological lesion which acts as a lead point. Cross sectional imaging in the form of CECT abdomen is the gold standard of diagnosing intussusceptions. Almost all the patients need surgery in the form of segmental resection or excision of primary pathology.

#### AIM

The aim of the study was to analyze the clinic pathological aspects of intussusceptions in adult population of non malignant etiology

## **MATERIALS & METHODS**

This was a retrospective analysis of prospectively maintained database of all patients diagnosed and treated for intussusceptions in the department of surgical gastroenterology, Sri Ramachandra institute of higher education and research which is a tertiary referral university hospital. The study period was from January 2009 to December 2018. The inclusion criteria was age above 18 years and intussusceptions secondary to benign pathology and low grade neoplasm. All malignant pathology and patients younger than 18 years were excluded.

#### RESULTS

A total of 18 patients formed the study group. 12 patients were male and six patients were female(chart). The commonest age group was 30-40 years. The youngest was a 20 year old girl and oldest was a 76 year old gentleman. The commonest presentation was abdominal pain with subacute intestinal obstruction. Other presentations include bleeding per rectum, acute intestinal obstruction, vomiting, recurrent intestinal obstruction and incidental finding. All patients underwent contrast enhanced CT abdomen. One patient with jejunogastric intussusceptions underwent upper gastrointestinal endoscopy. Two patients with colocolic intussusceptions underwent colonoscopy. The most common type was ileo-ileal intussusceptions in 12 cases, ileocolic in 2 cases, colo-colic in 2 cases, jejunojejunal in 1 case and jejunogastric in 1 case. Of the 18 patients only two patients presented with acute abdomen, which needed emergency surgery. The remaining patients presented with recurrent subacute obstruction needing elective operation. All patients underwent segmental resections except two patients, one with PJ syndrome required enterotomy and polypectomy and the other patient with JGI requiring bowel fixation. The most common etiology was submucus lipoma in 9 cases, 3 cases of inflammatory fibroid polyp, 2 cases of NET, one case each of PJ syndrome, Meckel's diverticulum, SLE and post GJ sequlae.

#### DISCUSSION

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Nearly 95% of intussusceptions are reported in infants where there is

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no primary mass lesion contributing and hence the treatment of choice is non surgical. Early diagnosis and hydrostatic reduction is the treatment of choice. However in adults the intussusceptions are always due to a primary pathology acting as a lead point(3,4), resulting in surgical treatment for almost all patients. In this study we have excluded invasive cancers and analyzed only non malignant etiology. Intussusceptions was reported in all age groups, the most common being 4th decade. The youngest patient in this series was a 20 years old girl suffering from SLE, presented with acute intussusceptions needing emergency surgery. The oldest was a 76 years old gentleman presenting with Jejuno-gastric intussusception. The most common etiology accounting for the lead point was submucus lipoma in 9 cases(picture 3, 4, 8). In three patients the etiology was inflammatory fibroid polyp(PICTURE 5&6). Two patients were due to low grade neuroendocrine tumors. One case was a 28 year old male with PJ syndrome presenting with jejunojejunal intussuscetion. There was one 76 years old male presenting with jejunogastric intussusceptions, nearly 20 years after surgery for peptic ulcer(PICTURE 7). He needed a laparotomy and fixation of the bowel with serosal sutures. One patient with Meckel's diverticlum presenting with intussusceptions as an emergency was operated. There was one girl a known case of SLE on steroids, presented with acute abdomen and on evaluation with CT showed a classical intussusception.

CT scan is the gold standard in the diagnosis of intussusceptions. In this series all patients were diagnosed with cross sectional imaging in the form of CT scan(picture 1&2). One patient with jejunogastric intussusceptions was diagnosed by upper gastrointestinal endoscopy. Two patients with colocolic intussusceptions underwent colonoscopy. None of the patients were offered conservative treatment. 16 patients needed segmental resection. One patient with JGI needed serosal fixation and the other patient with PJ syndrome needed enterotomy with polyp excision. This policy of offering surgery for adult intussusceptions is supported by the literature(2). There were no mortality in this series.

#### CONCLUSION

Intussusceptions in adult population always occur secondary to a structural primary pathology. CT scan is the gold standard of investigation. Surgical treatment is always required and tailored to the pathology.

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