

## CASE REPORT

### HETEROTOPIC PANCREAS: AN UNUSUAL CAUSE OF INTUSSUSCEPTION

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#### HOW TO CITE THIS ARTICLE:

S. Mohamed Musthafa, M. Baskaran Selvapathy, M. Kamalraj, Nivas, Anu Ramesh. "Heterotopic Pancreas: An Unusual Cause of Intussusception". Journal of Evolution of Medical and Dental Sciences 2015; Vol. 4, Issue 21, March 12; Page: 3741-3744, DOI: 10.14260/jemds/2015/539

**ABSTRACT:** Adult intussusception is a rare entity which constitutes 5-10% of all intussusceptions. In adults 90% have a cause for intussusception which is usually a polyp, adenoma, adhesion, hamartoma or tumour as lead point. Rarely described lead point is heterotopic pancreatic tissue with lipoma. Hereby reporting 32 year old male presented with abdominal pain, melaena and vomiting for 1 week. His CT abdomen showed submucosal lipoma causing ileoileal intussusception. He underwent ileal resection and anastomosis. Histopathology of the specimen showed heterotopic pancreatic tissue with lipoma as lead point. A comprehensive review on intussusception in adults is attempted.

**KEYWORDS:** Heterotopic pancreatic tissue with lipoma, Ileoileal intussusceptions.

**INTRODUCTION: BACKGROUD:** In children intussusception is the most common cause of obstruction and is mostly idiopathic. In adults intussusception is rarely encountered, approximately 0.1% of hospital admissions and around 10% of all intussusceptions. In adults ninty percent of cases a cause can be found.

Heterotopic pancreas (HP) is a congenital disorder in which benign pancreatic tissue is present outside the pancreatic frame. It occurs predominantly in the stomach, duodenum and proximal jejunum. Lesions occurring in the distal jejunum and ileum is rare and generally asymptomatic. Heterotopic pancreatic tissue with lipoma as lead point in ileoileal intussusception in adults is uncommon and only few cases were reported.

We report a case of young male presented with abdominal pain and subsequent small bowel obstruction caused by heterotopic pancreatic tissue with lipoma and its successful surgical management.

**CASE REPORT:** 32 year old male presented to our general surgery department with abdominal pain, melaena and vomiting for 1 week. On physical examination he was moderately nourished and had abdominal tenderness in right iliac fossa. Other system examinations were normal.

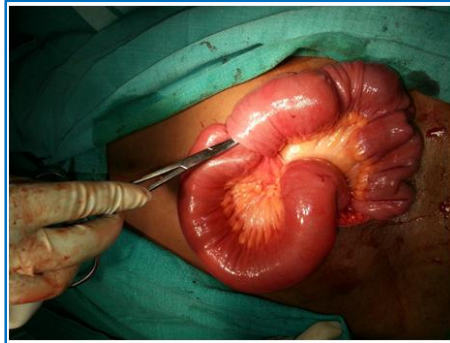
His X RAY abdomen did not show any abnormality. His USG abdomen showed fatty liver and was suggested CT abdomen for further evaluation. His CT abdomen showed submucosal lipoma 2.7\*2.3cm causing ileoileal intussusception.



**Fig. 1: CT abdomen showing ileoileal intussusception**

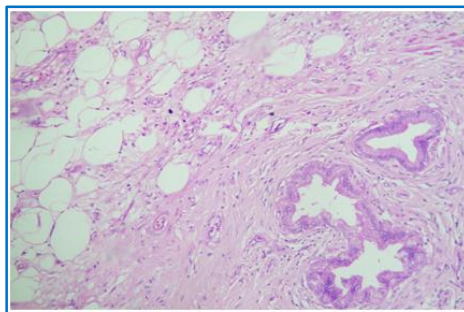
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Patient was taken up for exploratory laprotomy. Intraoperatively ileoileal intussusceptions which is 2 meters from ileocaecal junction was found. He underwent ileal resection and end to end ileoileal anastamosis was done. Postoperative period was uneventful.



**Fig. 2: Exploratory laprotomy showing ileoileal intussusception**

Histopathology of the specimen revealed thick irregular bundles of displaced smooth muscle tissue and fat cells within which were entwined ductular mucinous and pancreatic exocrine acinar tissue. The histological profile was typical of pancreatic heterotopia.



**Fig. 3: Histopathology specimen showing pancreatic heterotopia**

**DISCUSSION:** Heterotopic pancreas is a developmental anomaly, defined as pancreatic tissue found on ectopic sites without contiguity with the main pancreas.<sup>(1)</sup> The incidence of heterotopic pancreas is 0.2% of upper abdominal operations.<sup>(2)</sup>

Intussusception is primarily a disease of children but 5% of cases occur in adults.<sup>(3)</sup> Underlying cause identifiable in 90% of adults with intussusceptions.<sup>(4)</sup> Diagnosis usually delayed because of its intermittent and non-specific symptoms, and mostly diagnosed at emergency laparotomy. The most useful investigation is abdominal computed tomography (CT). CT will show a pseudokidney sign and a target sign, with edema of Kerckring's folds in the intussusceptum of the small bowel.

Felix et al. has published comprehensive review on intussusceptions. About 1, 200 cases from 11 series were reviewed.<sup>(5)</sup> Malignant tumours produced nearly 50% of colonic intussusceptions and predominantly benign tumours caused small bowel intussusceptions. Other causes of adult intussusception include Meckels diverticulum, coeliac disease, lymphoma, adenocarcinoma, carcinoid and idiopathic.<sup>(5,6,7)</sup>

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Cause	Colonic intussusceptions	Small bowel intussusception
Malignant tumors (eg, carcinoid, adenocarcinoma, lymphoma)	48%	17%
Benign tumors (eg, leiomyomas, pancreatic heterotopia)	21%	40%
Other causes (eg, idiopathic, post-operative)	31%	43%

**Table 1: Causes of small and large bowel intussusception in adults<sup>(5)</sup>**

Klob first described the histological appearance of a heterotopic pancreas in 1859.<sup>(8)</sup> The embryological derivation of heterotopic pancreas is well described.<sup>(9)</sup> Approximately half of cases of small bowel HP are asymptomatic.<sup>(10)</sup> Intussusception caused by HP is rare but has been described previously.<sup>(10,11,12)</sup> As in this case, it appears that only lesions greater than 15 mm become symptomatic.<sup>(10,13)</sup>

In adults, management of intussusception from any cause will invariably involve resection of the lead-point tissue and at times, segmental resection of the involved intestine. In summary, HP remains a rare cause of small bowel obstruction. Its management remains no different to that of intussusception from any cause and the possibility of malignant disease should always be remembered when planning surgery.

**CONCLUSION:** CT proves to be the most effective preoperative diagnostic method. However, there is almost always a pathological reason for adult intussusception, making surgery unavoidable in most cases. Because intussusception is often initially misdiagnosed in the adult population, it should be kept in mind that small bowel obstruction in adults may be caused by intussusception. Heterotopic pancreatic tissue with lipoma as lead point is rare cause of intussusceptions and should be suspected in patients with intestinal obstruction.

**ETHICAL STATEMENT:** We warrant that the patient's rights and confidentiality have been well protected in all aspects and he consented to the study described in the Work. All relevant ethical safeguards have been met in relation to patient protection.

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### FINANCIAL OR OTHER

**COMPETING INTERESTS:** None

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Date of Submission: 19/02/2015.  
Date of Peer Review: 20/02/2015.  
Date of Acceptance: 28/02/2015.  
Date of Publishing: 12/03/2015.