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HETEROTOPIC GASTRIC MUCOSA IN THE ILEUM PRESENTING AS INTESTINAL OBSTRUCTION IN INFANT

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ABSTRACT

Heterotopic gastric mucosa in the small intestine is rare but clinically significant when associated with complications gastrointestinal bleeding, intestinal obstruction or perforation, penetration into adjacent organs, and fistulization. We report a case of ectopic gastric mucosa found in the ileum of one month oldmale infant presenting with vomiting and abdominal distention. Histopathological evaluation confirmed thepresence of gastric tissue, including parietal and chief cells, within the ileal mucosa. Heterotopic gastricmucosa should be considered in the differential diagnosis of intestinal obstruction in infants and children.Histopathological confirmation remains key for diagnosis.

Keywords: intestinal obstruction, infants, intestinal duplication cyst, pathology, heterotropic gastric mucosa

INTRODUCTION

Heterotopic gastric mucosa (HGM) is defined as gastric tissue outside of the stomach having

histopathological features of native enteric mucosa. True heterotopia is a congenital developmental lesioncharacterized by the presence of normal tissue in an abnormal location, without any connection to the organof origin. In the alimentary tract, true heterotopias can occur anywhere from the tongue to the rectum.

HGM is most commonly found in Meckel's diverticulum and gastrointestinal duplication cysts.[1]

It typically remains asymptomatic; however, it can lead to complications such as gastrointestinal bleeding or intestinal obstruction.[2]

The occurrence of heterotopic gastric mucosa (HGM) in the ileum is rare, and when it presents with smallbowel obstruction, a definitive diagnosis is typically made postoperatively through histopathologicalexamination [3].

We report a rare case of heterotopic gastric mucosa (HGM) in a one-month-old infant,complicated by intestinal obstruction. To the best of our knowledge, this is an exceptionally uncommonpresentation involving polypoid HGM in the ileum, which was successfully managed through surgicalresection.

CASE REPORT

One-month old male infant was admitted to pediatric surgical ward with complain of abdominal distention andvomiting for four days. Imaging studies shows enteric duplication cyst at

ileum. So exploratory laparotomywith resection and anastomosis done for ileum and jejunum. We received resection specimen comprising ofsegment of ileum and jejunum.

Grossly, part of ileum measures 7x1cm and shows polypoid out pouching structure arising from ileum

measuring 7x3cm. On cut opening ileum was grossly unremarkable. Cut surface of out pouching polypoid shows normal looking mucosa and thickened wall. Ulceration, perforation and hemorrhage was not identified (Figure 1).

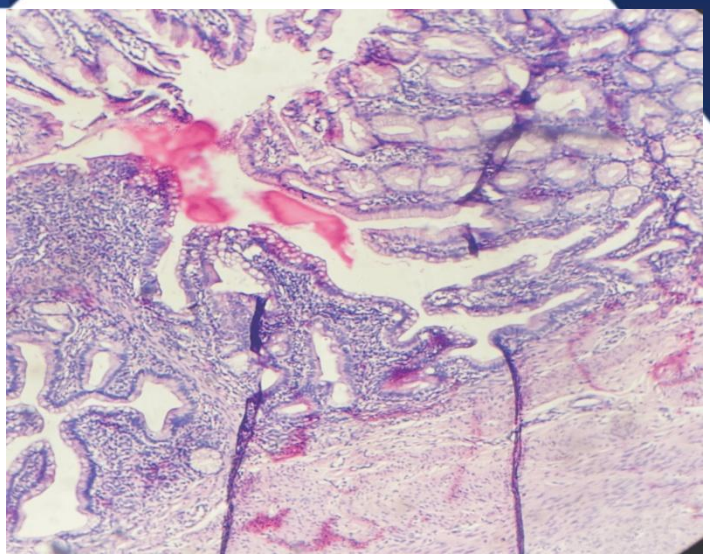
Figure1: Gross: Cut surface of polypoid cyst



Microscopically section from polypoid structure shows a well formed cyst lined by gastric-type mucosacontinuous with ileal mucosa having foveolar epithelium including parietal and chief cells. Submucosa andmuscular layer were edematous and shows moderate inflammation comprising of lymphocytes and plasmacells. Hence the diagnosis was given as Heterotropic Gastric Mucosa in ileum (Figure 2).

Figure 2: **: Microscopic: Lining epithelium comprising of Heterotopic gastric mucosa having foveolar epithelium and gastric glands along with distinct transition into ideal type mucosa(H&E 100x**

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DISCUSSION:

Heterotopic gastric mucosa is an uncommon congenital condition affecting the gastrointestinal tract in

neonates, particularly rare in the small intestine, and is typically associated with developmental

disturbances during embryonic growth.[1]Heterotopic gastric mucosa (HGM) is most frequently found nearthe upper esophageal sphincter, with an estimated prevalence of about 3%. The duodenum is anotherrecognized site, where prevalence rates have been reported to range between 0.5% and 8.9% in variousstudies. However, the occurrence of HGM in other parts of the gastrointestinal tract is exceedinglyuncommon. Clinically, patients may exhibit a wide range of symptoms, including gastrointestinal bleeding,obstruction, or even perforation .[2,3]Our case was distinctive due to the unusual location and morphologyof the lesion, which presented as a polypoid cystic structure consisting of heterotopic gastric mucosa thatwas continuous with the surrounding ileal mucosa.

The exact pathogenesis of HGM remains uncertain. The most widely accepted theory suggests that it arisesfrom aberrant differentiation of pluripotent stem cells, which have the capacity to develop into variousepithelial cell types.[3]

Histopathological examination remains the gold standard for diagnosis. In our patient, the resected ileal segment revealed well-developed gastric mucosa, including parietal and chief cells, confirming the diagnosisof HGM.[4]

Surgical resection remains the definitive treatment. If left untreated, the potential for volvulus, perforationor malignant degeneration is high. Complete excision of the affected segment usually results in resolution ofsymptoms.[5-6] In our case, the patient had an uneventful postoperative recovery.

CONCLUSION:

Heterotopic gastric mucosa (HGM) is a rare congenital condition, particularly in the small intestine, and cancause complications like gastrointestinal bleeding or obstruction. This case is unique due to the presence ofpolypoid HGM in the ileum of a one-month-old infant, a highly uncommon presentation. The diagnosis wasconfirmed postoperatively through histopathological analysis.

This case emphasizes the importance of clinical suspicion and thorough evaluation, including imaging,

when dealing with rare gastrointestinal anomalies. Early diagnosis and surgical intervention are crucial forfavorable outcomes, and it highlights the need for awareness of HGM in neonates presenting with intestinalobstruction.

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