Heterotopic Gastric Mucosa in Jejunum: A Case Report

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ABSTRACT

Heterotopic gastric mucosa (HGM) has been described as an incidental finding in various parts of gastrointestinal tract. HGM of the small bowel is a congenital disorder with variable manifestations like bleeding, obstruction or perforation, penetration into adjacent organs, and fistulization. We present a case of a 55 year old female being evaluated for anemia associated with recurrent episodes of diarrhoea and dyspepsia. The cause was found to be HGM in the jejunum.

Key words: *Heterotopic gastric mucosa, bleeding, anaemia*

JMS: 2019; 22(1):67-70 DOI: <https://doi.org/10.33883/jms.v22i1.381>

Heterotopia is the presence of a particular type of tissue in a place where it is not normally found.¹ Gastric heterotopias can occur throughout the entire gastrointestinal tract from the oral cavity to the anorectum.² However, gastric heterotopias presenting as a tumor-like mass in the jejunum is an uncommon event.^{3,4} Gastric heterotopias of the small intestine can be asymptomatic or present with symptoms of intestinal obstruction, ulceration, bleeding, perforation, intussusceptions, and pain.^{3,4} It is important to differentiate gastric metaplasia, which occurs in inflammatory conditions from true heterotopias which is a developmental anomaly.⁵

Case report

A 55 year old female presented with history of easy fatigability and loose stools from one year. Patient was evaluated at our hospital. Laboratory tests included complete blood count, serum electrolytes, liver and kidney function tests, coagulation profile, erythrocyte sedimentation rate (ESR), reticulocyte count, and antinuclear and anti-smooth-muscle antibody screen. All

results were normal except for dimorphic anaemia, esophago gastroduodenoscopy (EGD) documented antral gastritis and antegrade enteroscopy revealed a polypoid mass about 2cm in size seen in proximal jejunum, with smooth overlying mucosa. Contrast-enhanced computed tomography (CECT) documented a polypoid mass 14 × 9mm in size in proximal jejunum with unremarkable perilesional fat and no lymphadenopathy. Decision of performing a laparotomy for resection of the mass was taken.

Resection anastomosis of the jejunal mass 10cm from the duodenojejunal flexure (DJ) and wedge resection with primary anastomosis of another incidental jejunal mass 30cm from the DJ flexure was done. HPE revealed features of gastric heterotopias showing parietal and chief cells with

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Access this article online

Website:
www.jmsskims.org

DOI:
<https://doi.org/10.33883/jms.v22i1.381>

How to cite this article: Rather JM, Manzoor S, Wani RA. Heterotopic gastric mucosa in jejunum: A rare case report. *jms* [Internet]. 2019 Mar. 29 [cited 2019 Apr. 8]; 22(1). Available from: <http://www.jmsskims.org/index.php/jms/article/view/381>

Received: 03-02-2019 Accepted: 25-03-2019

unremarkable resection margins.

DISCUSSION:

Our patients initial presentation was suggestive of anemia of unknown cause. Enteroscopy and CECT revealed the process to be localised to a segment of proximal jejunum. The mucosa overlying was found to be smooth with local mesenteric lymphadenopathy, assumed to be reactive. The possibility of jejunalGastrointestinal stromal tumor(GIST) was raised. The lack of a definitive diagnosis, the localisation of the lesionand the possibility of malignancy resulted in surgical intervention. Histopathology of the respected specimens established the diagnosis of HGM.

HGM was first described by Schmidt in 1805.⁶ It is classified as either congenital (heterotopic) or acquired (metaplastic). It has been reported throughout the entire gastrointestinal tract from the oral cavity to the anus, in the airways, umbilicus, urinary bladder, and even in the scrotum⁶⁻¹⁶. The clinical presentation varies and depends on the size and location of the HGM. HGM can form an intraluminal mass and cause airway or intestinal obstruction^{6, 10}. It may serve as the lead point for the development of intussusception¹⁶⁻¹⁹. Intestinal mucosal ulceration with GI bleeding is a known complication of HGM^{14, 20}. Intestinal perforation and fistulization to adjacent structures have also been described²¹⁻²³. Several hypotheses have been suggested to explain the origin of gastric heterotopia. Wacrenier *et al*²⁴ and Soule²⁵ believed that gastric heterotopia arose from the epithelium of the primitive gut, which was separated from the primordial stomach and underwent hyperplasia over time due to unknown pathways. Skandalakis *et al*²⁶ proposed that heterotopic gastric mucosa originated from the metaplasia of pluripotent endodermal cells of the foregut. Abel *et al*²⁷ proposed that this lesion was of vitellointestinal tract origin. Other authors proposed the ability of endodermal cells of the primitive gut throughout the gastrointestinal tract to differentiate and undergo hyperplasia or physical movement of the gastric epithelia due to unknown pathways^{4, 27}.

In all reported cases of HGM in the small intestine, the definitive diagnosis was established by histopathological examination of the surgically removed specimens; and in the majority of cases surgery was performed for acute complications such as GI hemorrhage and intestinal

obstruction.

It is unusual for HGM to manifest as a chronic illness without overt mechanical obstructive or haemorrhagic signs as was the case in our patient.

Picture 1: CT scan picture of the lesion

Picture 2: Intraoperative picture of the lesion

Picture 3: Intraoperative picture of lesion

Picture4: Histopathology picture

Picture 5: Histopathology picture

Conflict of interest: Nil.

Financial Source: Nil

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