

# Unusual Presentation of Gastric Polyp in a Young Child: A Case Report

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## Abstract

Gastrointestinal polyps are described as abnormal lesions that originate in the gastric epithelium or sub mucosa and protrude into the stomach lumen. It may present as an isolated lesion, or could be multiple as part of juvenile polyposis. It could be hereditary or acquired; hamartomatous or hyperplastic in structure; sessile or pedunculated in shape and of benign or malignant origin. Rectal lesions are the commonest in children but gastric polyps are rarely described in this age group, especially in those less than five years old [1]. Clinical presentation of gastric polyps in children varies widely, from incidental endoscopic finding to massive gastrointestinal bleeding [1]. We report a case of unusual upper gastrointestinal bleeding causing severe anaemia requiring blood transfusion secondary to gastric polyp in a young child.

## Case Report

A 5-year old otherwise healthy girl presented to the local hospital with a short history of lethargy and pallor. There was no history of vomiting or diarrhoea initially but after 2 days she developed melaena. Clinically she was found to be pale and tachycardic initially with a systolic heart murmur, which resolved after transfusion. There was no evidence of hepato-splenomegaly, lymphadenopathy or jaundice. She was born at full term and had no history of hospital admission. Her initial investigations showed a slightly raised CRP of 38 mg/l and low Haemoglobin of 4.6 grams/dl; which warranted an urgent blood transfusion. Otherwise her renal function, coagulation screen and liver functions were all within normal limits. Abdominal ultrasound scan findings were normal. A meckle's radioisotope scans showed no evidence of Meckle's diverticulitis. After stabilization she was referred for an urgent gastroscopy, which revealed an intragastric mass extending across the pylorus (Figure 1). MRI abdomen showed a large sessile gastric mass in the pyloric lesser curvature extending to the first part of the duodenum (Figure 2). Surgical excision was decided after multidisciplinary meeting and a written consent was obtained. She underwent laparotomy via upper transverse abdominal incision. A well-circumscribed lesion originating from gastric wall with intact serosa was completely excised. She had full recovery without any complications. Repeated haemoglobin prior to discharge rose to 9.8 gm/dl and no further episode of melaena was reported. Histopathology confirmed non-neoplastic non-hamartomatous gastric polyp measured 6.5 × 2.5 × 2 cm.

## Discussion

Gastrointestinal polyps in general are frequently described in children. The prevalence of gastric polyps in children is low compare to adults (0.7% vs. 6.35%) [1,3]. Gastric polyps are more frequent in white than in other ethnic groups.

Rectum is the commonest site for isolated lesions, while presence of polyps in the stomach is considered exceptional (2-6% of upper gastrointestinal endoscopies & 0.4% of necropsies) [3]. Wang et al, [2] reviewed 50 patients with gastrointestinal polyps. Two thirds of cases were solitary, two third were recto sigmoid; and 8% were gastric.

Gastric polyps were described in association with Familial Adenomatous Polyposis; however these were asymptomatic and non-malignant [3]. Gastric polyps were also described in association with Neurofibromatosis type 1 [7], with long-term use of Proton Pump

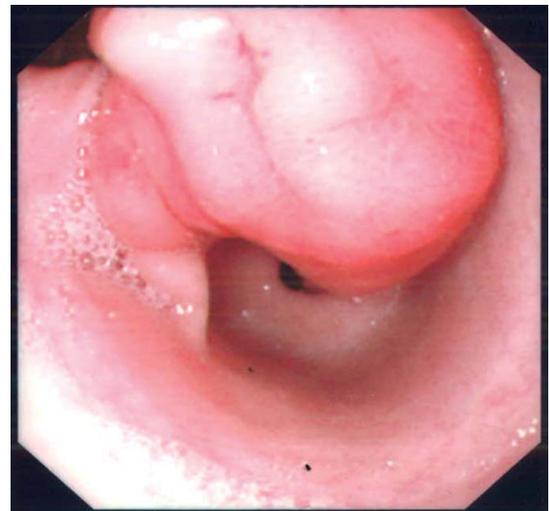


Figure 1: Endoscopic appearance of Gastric polyp.

inhibitors [1,8] and with tuberous sclerosis [9]. In terms of presentation; Gastric polyps are mostly asymptomatic, however they may present with vomiting, 3 out of 4 gastric polyps presented with vomiting [2]. It was also reported to present with gastroduodenal intussusception [6] or anemia [4,6]. Murphy et al. [4] described 3 cases of gastric polyps in children. One was an incidental finding, the second presented with gastric outlet obstruction and the third had anaemia due to breakdown of friable gastric mucosa.

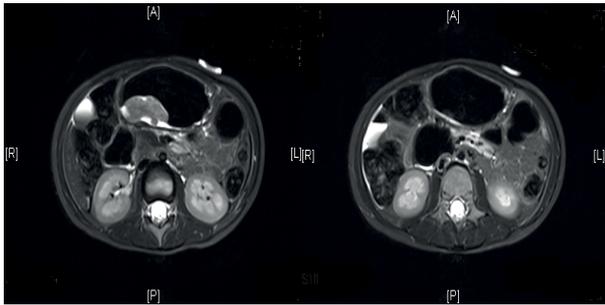
The histological subtypes included hyperplastic-inflammatory (42%), fundic gland (40%), hamartomatous (10%), adenomatous (5%),

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**Figure 2:** MRI abdomen showing the presence of the poly in the stomach and pyloric canal with its extension to the first part of Duodenum.

and heterotopic polyps (3%) [3]. The majority is hyperplastic (75-90%), followed by adenomas [1] but tiny fundic polyp has also been reported in tuberous sclerosis [9]. Hamartomatous polyps usually are asymptomatic and diagnosed incidentally while searching for other diagnoses as in intestinal obstruction [10] or anemia secondary to acute and chronic blood loss. Their stroma is richly vascular, justifying excessive bleeding. Fundic gland polyps are frequently encountered in patients with familial adenomatous polyposis (81%). These patients tend to be asymptomatic at the time of their surveillance esophagogastroduodenoscopy and frequently harboured histological changes of either dysplasia (31%) or indeterminate of dysplasia (19%) [2]. A tendency towards malignant change has been reported in juvenile polyposis cases, especially in gastric and periampullary polyps.

In our patient, the presence of other gastrointestinal polyps was excluded by endoscopy. She did not show any cutaneous lesions suggestive of Peutz-Jeghers syndrome or Pringle's adenoma. There were no neuro-cutaneous stigmata suggestive of tuberous sclerosis. She was not on long term proton pump inhibitor. Endoscopic resection is generally advised however; due to non-specific endoscopic appearance of a sizeable transpyloric mass, the surgical route was chosen. Successful open resection of gastric polyp was performed. The post-procedural

course was uneventful without a bleeding episode. Endoscopic submucosal dissection is now recognized as alternative surgical modality for gastrointestinal epithelial lesions to avoid laparotomy and enhance recovery as described in some reports [7,8]. Further studies of the use of Endoscopic resection in children is needed. Our case represents an unusual cause of upper GI bleeding that should be thought of.

## Conclusion

We describe an unusual presentation of gastric polyps in a young child. Gastric polyps may constitute a life threatening condition that needs a prompt intervention.

## References

1. Carmack SW, Genta RM, Schuler CM, Saboorian MH (2009) The current spectrum of gastric polyps: a 1-year national study of over 120,000 patients. *Am J Gastroenterol* 104: 1524-1532
2. Wang LC, Lee HC, Yeung CY, Chan WT, Jiang CB (2009) Gastrointestinal polyps in children. *Pediatr Neonatol*. 50: 196-201.
3. Attard TM, Yardley JH, Cuffari C (2002) Gastric polyps in pediatrics: an 18-year hospital-based analysis. *Am J Gastroenterol* 97: 298-301.
4. Murphy S, Shaw K, Blanchard H (1994) Report of three gastric tumors in children. *J Pediatr Surg* 29: 1202-1204.
5. Uddin N, Abernethy LJ (1998) Gastroduodenal intussusception with a gastric antral polyp. *Pediatr Radiol* 28: 460.
6. Di Cataldo A, Dibenedetto SP, Ragusa R, Bagnara V, Cacciaguerra S (1993) Unusual cause of sideropenic anemia in childhood: solitary stomach polyp. *Pediatr Hematol Oncol* 10: 183-185.
7. Grynspan D, Lukacik M, Madani S, Poulik J (2008) Two hyperplastic esophagogastric polyps in a child with neurofibromatosis type 1 (NF-1) *Pediatr Dev Pathol* (3): 235-238. Epub 2007 Jul 16.
8. Pashankar, D.S and Israel, DM (2002) Gastric polyps and nodules in children receiving long-term omeprazole therapy. *J Pediatr Gastroenterol Nutr* 35: 658-662
9. Marshak RH & Feldman F (1965) gastric polyps. *Am J Dig Dis* 10: 909.
10. McAlister WH, Katz ME, Perlman JM, Tack ED (1988) Sonography of focal foveolar hyperplasia causing gastric obstruction in an infant. *Pediatr Radiol* 18: 79-81.