CASE REPORT

A Neonate with Upper GI Bleeding

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ABSTRACT

Bleeding in the newborn is often a serious problem because of cardiovascular effects associated with a loss of blood and/or the damaging effects of bleeding on neonatal tissues, especially the brain. Gastric polyps are described as abnormal lesions that originate in the gastric epithelium or submucosa and protrude into the stomach lumen. Clinical presentation of gastric polyps in children varies widely, from incidental endoscopic finding to massive gastrointestinal bleeding. However, acute gastrointestinal bleeding in association with hyperplastic gastric polyps has been reported very rarely. We report a case of unusual upper gastrointestinal bleeding in newborn baby on 2nd day of life, secondary to gastric polyp, which was diagnosed and resected through endoscopy.

Key Words: *Gastric polyp, Upper GI bleeding, Neonates.*

INTRODUCTION

Gastrointestinal (GI) bleeding, which has several clinical manifestations and origins, is known as one of the most life-threatening events in children.[1] Several etiologies have been suggested for GI bleeding. Upper GI bleeding originates from the upper part of the esophagus to the small intestine at the level of ligament of Treitz, and is characterised by hematemesis and melena.[2] The development of gastric hyperplastic polyps results from excessive proliferation of foveolar cells accompanied by increased exfoliation, and they are macroscopically indistinguishable from other polyps with lower or higher malignant potential.[1] GI polyps are described as abnormal lesions that originate in the gastric epithelium or submucosa and protrude into the stomach lumen. These may present as an isolated lesion, or could be multiple as part of juvenile polyposis. These could be hereditary or acquired; hamartomatous or hyperplastic in structure; sessile or pedunculated in shape, and of benign or malignant origin.[3] Clinical presentation of gastric polyps in children varies widely, from incidental endoscopic finding to massive gastrointestinal bleeding.[3]

CASE REPORT

A neonate at 2nd day of life developed fresh bleeding from mouth after passing orogastric (OG) tube for feeding purpose. Baby was born at 34 weeks of gestation (Preterm), birth weight 1.3 kg, born to parents with non-consanguineous marriage, to a 33-year female *via* EM-LSCS, due to fetal distress and intra-uterine growth retardation (IUGR). She was booked case with regular antenatal visits. She had no any comorbid conditions, She had normal routine antenatal ultrasonography examination except IUGR and fetal anomaly scan detected a spindle shaped solid area attached with the wall of stomach in the stomach bubble area antenataly. Baby cried soon after birth with APGAR score 8/1, 9/5. There was no family history of bleeding disorders. On 2nd day of life, when baby was bleeding, physical examination showed a pale newborn with stable vital signs. Systemic examination revealed no abnormalities. Supportive care was given. Baby was kept nil per orally (NPO). Immediate abdominal X-ray done which showed a hazy shadow in left upper abdomen, IV line was maintained, oxygen support was given and IV antibiotics and IV fluids were given. The complete blood count showed a hemoglobin of 6.7 G/dl and a platelet count of 260/ul. As baby was continuously bleeding from mouth, so immediate resuscitation was done and fresh frozen plasma (FFPs) packed cells were transfused, and baby was kept on ventilator. Vitamin K was given for 3 days, urea and electrolytes, hepatic profile, prothrombin time and partial thromboplastin time were normal. Ultrasound (US) head showed Grade 1 intraventricular hemorrhage probably due to prematurity, US abdomen showed blood in bowel. CT scan showed a solid lesion within the stomach arising from the lesser curvature. It showed multiple lucencies within it, which possibly secondary to degeneration. After stabilizing his condition, endoscopy was performed which showed a polypoidal mass arising from the anterior wall of the stomach (Figure 1). Biopsy of the mass was taken and polyp resected endoscopic ally.

The baby had full recovery without any complications. Repeat hemoglobin prior to discharge rose to 10.2 g/dl and platelet count of 210/ul and no further episode of hematemesis occured. Histopathology confirmed non-neoplastic non-hamartomatous gastric polyp.

The baby made full recovery. One month later, the baby was followed-up again, was asymptomatic and healthy, with normal growth and developmental parameters.

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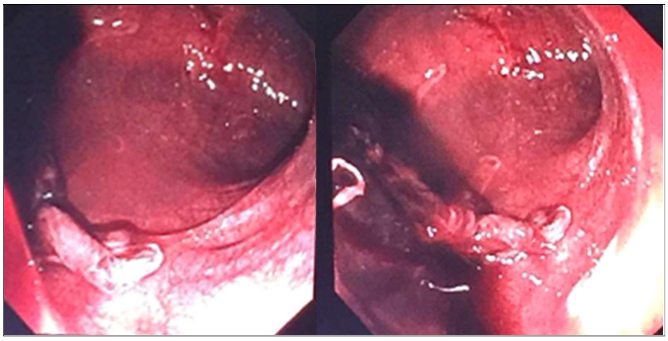

Figure 1: Ultrasound shows lobulated masses (black arrows) in the stomach. The pylorus is indicated by the white arrow.

DISCUSSION

Polypoid lesions of stomach are uncommon in children. They comprise a heterogeneous group of histopathologic entities, such as squamous papilloma, leiomyoma, polypoid carcinomas, fundic gland polyps, and hyperplastic polyps (HPs).[4]

A diverse array of polyps and polypoid lesions may be found in the stomach. Epithelial polyps (hyperplastic, fundic-gland, and adenomatous) are the classic gastric polyps, but clusters of endocrine cells (carcinoids), infiltrates (xanthomas, lymphoid proliferations) or mesenchymal proliferations such as gastrointestinal stromal tumors (GISTs), leiomyomas and inflammatory fibroid polyps may also produce mucosal protrusion.[1]

Hyperplastic polyps are the most frequently identified gastric polyps in pediatric population.[5]

Patients may present with upper GI bleeding, abdominal pain or gastric outlet obstruction. Large gastric polyps or those associated with complications should be removed either endoscopicaly or surgically because they pose a risk of malignant transformation and may lead to bleeding and obstruction.[6]

The most important and long-term complication of hyperplastic gastric polyps is their tendency to transform into a malignant tumor,[7] Endoscopic polypectomy is the current recommended management for hyperplasic gastric polyps.[8]

Haematemesis in this patient can be explained by the presence of a polyp found in the pyloric region which acted as a ball-valve mechanism, causing obstruction to the gastric outlet. Exposure of the functional mucosa of this polyp to the alkaline medium of the duodenum possibly resulted in continuous gastrin secretion and in turn hypergastrinaemia and erosion of the polyp leading to haematemesis.[9]

This case is a rare presentation of gastric hyperplastic polyp which resulted in massive GI bleeding in a newborn. Endoscopic resection helped in controlling bleeding, and the lesion was diagnosed timely. Physicians encountering upper GIT bleeding in newborns should be aware of this rare disease, as the timely diagnosis and treatment prevent short-term and long-term complications and save life.

GI polyps in children are usually benign. Pediatricians treating a child with a GI polyp should pay attention to the immediate complications of the polyp, such as intussusception or bleeding, the extra-intestinal complications and long-term risk for malignancy.

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