INTRODUCTION

Duplication of stomach is a rare congenital anomaly and a very few cases of pyloric duplication cyst have been reported.1 It varies in size and location but in majority of the cases it is located at the greater curvature.2 It shares a common wall with normal stomach and may or may not communicate with the stomach. When it does not communicate with any structure it is called gastric duplication cyst; if adjacent to pylorus it may also be called pylorus duplication cyst like our case. Majority of these cysts are ovoid or spherical. Three theories have been presented for its embryogenesis;

A. Bremers Theory3: Embryological persistence of vacuoles within foregut wall.
B. Lewis and Thyng4: Due to persistent embryogenesis diverticulum seen in lesser curvature.
C. Mcleitchie Theory5: It is due to faulty separation of endoderm and notochord in early development.

It may be communicated with pancreatic duct6 so may cause relapsing pancreatitis.7 It may give rise to serious complications like ulceration perforation, hemorrhage, gastric outlet obstruction, malignancy and pseudopancreatic cyst.8 The usual symptoms are pain epigastrium, vomiting, vague mass upper abdomen, weight loss, failure to thrive and malaena.9 Surgery is an undisputed mode of management and so many modification have been offered by different authors.10

CASE REPORT

A six years old boy presented to us on 28-04-09 with pain upper abdomen, lump and vomiting off and on since birth. He could take only milk and fluids and he used to feel relief in pain after vomiting. So he failed to gain height and weight. He used to have constipation some times but his urination was normal. The parent...
consulted so many doctors and pediatricians of the teaching hospitals and numerous investigations were done including CT Scan but nobody could pinpoint the disease. All gave him different medicines but none of them examined the patient properly. At the time of examination he had an ill defined lump just above right side of umbilicus.

Blood Report: Hb was 9G, ESR 30 per hour and blood group AB+.

Ultrasound Report: Increased mural thickening of transverse colon distal to hepatic flexure with thickness of 6mm of 40mm long segment. No separate visible soft tissue mass, no volvulus no intussusceptions, no free fluid in the peritoneal cavity.

CT Scan Abdomen: With oral contrast ill defined rounded mass with central low attenuation zone observed in right hypochondrial region inseparable from serosal region of anterolateral wall of transverse colon measuring 35mm x 33 mm in axial dimensions and 42mm in vertical dimensions, no relation to gastric wall, duodenum, gall bladder or liver observed. Pancreas was normal.

Operation: He was operated on 08-05-09 under general anaesthesia. A long right paramedian incision was given there was a thick wall cyst of size of a golf ball having common muscular layer of the pylorus inseparable from transverse colon. The character of mucosa and muscular layer of the cyst was more like stomach. It had no communication with the stomach and colon. The cyst along with part of stomach and 10cmsg of transverse colon was removed and primary repair of stomach and colon was performed. 200ml of blood was transfused.

Post Operative: Patient made an uneventful recovery. He was discharged on 9th day after operation after removal of sutures with perfect healing. He reported in the outdoor 7 days later. He started eating solid food and had a ferocious appetite and has started gaining the weight.

Biopsy Report:

Gross Appearance: (Fig-1). The specimen consists of a 10cm long segment of intestine. Close to it there is a cystic mass with central lumen. The lumen is not in continuity with that of intestine or stomach. The thickness of wall is 4-5mm. Two sections taken from the cystic wall.

Microscopic appearances: The section shows wall of stomach with all layers i.e. mucosa, muscularis mucosa brunner glands and muscularis externa. The mucosa has tall columnar epithelium. There is no inflammatory or any significant abnormality.

Opinion: Gastric Wall

DISCUSSION

Incidence of duplication of stomach is much rare and least expected. The failure to thrive and firm lump above umbilicus made us suspicious of this disease. Ultrasound and CT Scan has been the most useful investigation to diagnose this anomalies with other author1,12 but both were misleading in our case. Non bilious vomiting is the main complaint in infants in this disease but is more common in pyloric stenosis which made the diagnosis difficult.13 That is why the disease was diagnosed at laparotomy. Other more useful investigations in this disease like EUS (endoscopic US) and MRI12 were not available to us. Most of the cases are diagnosed in infancy14 but our case could not be diagnosed till the age of six year. Gastric duplication is
more common in females\textsuperscript{15} though our case was a male. It is reported to be associated with other anamolies in 50\% of the cases especially of spine and gastrointestinal tract\textsuperscript{16} but there was no other congenital malformation in our case. We removed the cyst in toto as recommended by most of the authors.\textsuperscript{17} We had to remove the part of pylorus and a small segment of transverse colon as both could not be separated from the cyst. Primary repair of colon and stomach was done. As pressure on both visera was relieved so he started taking normal food without any symptoms.

CONCLUSION

This was a rare case of congenital pyloric duplication cyst which was partially blocking stomach and transverse colon but had no communication with anyone of them. His all symptoms were due to pressure which got relieved after its removal.

REFERENCES