



Case Report

Malrotated Gut Mimicking Gastric Out Let Obstruction in an Adolescent- A Case Report

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Abstract

Most of the patients with mal-rotated gut present in neonate and infancy either with acute strangulating obstruction or with recurrent episodes of sub-acute obstruction. Here an adolescent male patient of 17 years with mal-rotated gut presented with upper abdominal pain, vomiting after meal and loss of weight mimicking gastric out let obstruction. Because of rarity of the condition at this age, we are inspired to report this case.

TAJ 2005; 18(1): 53-54

Case History

A 17 years old man, hailing from Motihari, Rajshahi, presented with complaints of upper abdominal pain, more marked after meal with induced vomiting and marked loss of weight for two months. Pain was relieved by vomiting. He had some episodes of bilious vomiting since childhood but he did not give any history of fever, night sweat, haematemesis or melaena.

On clinical examination, the patient was anaemic, cachectic, dehydrated with scaphoid shaped abdomen with upper abdominal visible peristalsis from left to right with positive succussion splash but no palpable lump in the abdomen.

Plain X-ray abdomen revealed no abnormality. Ba-meal X-ray of stomach and duodenum showed hugely dilated stomach and almost whole of the duodenum but there was no filling defect. Endoscopic examination of upper gastro intestinal system showed healthy pyloric ring with no active duodenal ulcer but widely dilated duodenum was found.

Finally after adequate preparation laparotomy was done which revealed congenital bands extending from the caecum upto the right parietal wall crossing and compressing the duodenum. There was mal-rotation of gut with caecum and the ascending colon lying at the left para-vertebral region. Bands were released and intraluminal obstruction was excluded. Incidental appendicectomy was performed. Large gut was repositioned on the left side and small gut in the right side.

The patient was under follow up. There was 10 kg weight gain and he was free from previous symptoms and signs after 3 months of the operation.

Discussion

The term mal-rotation refers to a condition in which the mid-gut, part of the intestine supplied by the superior mesenteric vessels extending from the duodeno-jejunal flexure to the mid-transverse

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colon remains unfixed and suspended on a narrow based mesentery¹. The narrow pedicle formed by the base of the mesentery in mal-rotation predisposes the mid-gut to clockwise twisting from the duodenum to the transverse colon².

If rotation is incomplete, the caecum remains in the epigastrium, but the bands fixing the duodenum to the retro-peritoneum and caecum continue to form; this results in bands.

Mal-rotation may go undetected throughout life. Approximately 60% of cases are encountered in the 1st month of life and over 40% of these within the 1st week³.

A wide spectrum of clinical symptoms has been ascribed to mal-rotation. The most common symptom is intermittent or cyclic vomiting which is occasionally bile tinged. Failure to thrive and malnutrition may be a result of intestinal mal-absorption secondary to lymphatic compression in the narrow based mesentery. Older children may present with features of anorexia nervosa.

Recurrent abdominal pain and mal-absorption are two primary presentation of chronic mid-gut volvulus. Bilious vomiting in conjunction with abdominal pain should be considered as surgical problem until proven otherwise⁴.

The diagnosis of mal-rotation is best made by an upper gastrointestinal barium follow through series that show incomplete rotation with

duodeno-jejunal junction displaced to the right. The duodenum may show a corkscrew effect diagnosing volvulus or complete duodenal obstruction with small bowel loops entirely in the right side of the abdomen. Barium enema shows a displaced caecum.

Adequate preoperative preparation with correction of anaemia is essential before laparotomy.

The Ladd procedure corrects the fundamental abnormalities associated with malrotation with or without mid-gut volvulus.

Conclusion

Malrotation of gut causing small intestinal obstruction may present as a clinical confusion of gastric outlet obstruction which should be kept in mind.

References

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