

A CASE REPORT : A CASE OF SUPERIOR MESENTERIC ARTERY SYNDROME

General Surgery

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KEYWORDS

BACKGROUND

Superior mesenteric artery (SMA) syndrome is an uncommon but well recognized clinical entity characterized by compression of the third, or transverse, portion of the duodenum between the aorta and the superior mesenteric artery. This results in chronic, intermittent, or acute complete or partial duodenal obstruction. Superior mesenteric artery syndrome was first described in 1861 by Von Rokitansky, who proposed that its cause was obstruction of the third part of the duodenum as a result of arterio-mesenteric compression. Some studies report the incidence of superior mesenteric artery syndrome to be 0.1-0.3%.

CASE REPORT

30year female patient presented to emergency department with chief complains of, upper abdominal pain ,vomiting, abdominal fullness since 1 day Patient had complain of sudden onset of left upper abdominal pain which was stretching nature, intermittent aggravated after meal, relieved after vomiting associated with upper abdominal distension. No complains of weight loss, fever, blood in vomitus or stool. No history of any chronic medical illness, history of blood transfusion twice in antenatal period.

EXAMINATION

On general examination, patient is malnourished and poorly built with weight of patient 30kg. Pulse: 106/min, blood pressure: 106/70mmhg. per abdomen, there was upper abdominal distension present in left hypochondrium, epigastrium with mild tenderness in periumbilical region. Otherwise abdomen was soft non-tender.

on ryle's tube insertion there was 1000ml gastric content aspirated followed by decrease in abdominal distension, and pain.

MANAGEMENT

Investigation in form of hemogram, RFT, LFT was done which were with in normal limit

- Ultrasonography – 6cm long distal duodenum and jejunum mildly oedematous wall thickness 3-4mm, aortomesenteric angle 13degree, aortomesenteric distance 3.2mm.
- To confirm diagnosis, CT angiography abdominal vessels done suggestive of dilatation of stomach and duodenum with abrupt luminal narrowing at origin of superior mesenteric artery possibility of SMA syndrome.

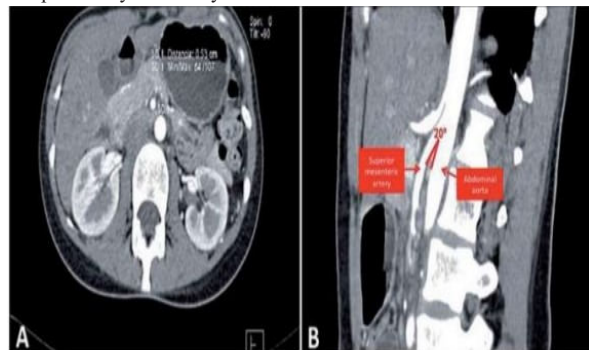


Figure 1 ;contrast Ct Showing Reduced Arterio-mesenteric Angle

- Intraoperative finding - Stomach and duodenum up to third part dilated. Transverse colon and mesocolon lifted up and Dilated 2nd

part of duodenum identified and peritoneal reflection over duodenum separated. Duodeno-jejunostomy done at 3rd part by hand sewn manner by vicryl 3-0 in four layers.

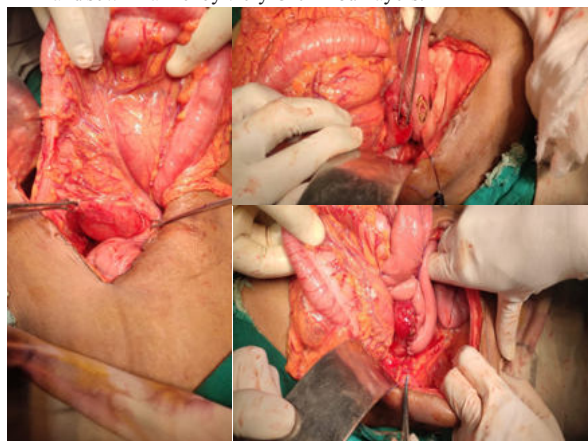


Fig. 2 : (1) dilated stomach with duodenum, (2) opening in 3rd part of duodenum and proximal part of jejunum, (3) side to side duodeno-jejunal anastomosis.

- Post operative period was uneventfull. Patient started orally on POD 5.Drain removed on POD 6.Patient discharged on POD 9 with weight 31.5kg.

DISCUSSION

Superior mesenteric artery syndrome also known as 'wilkie's syndrome'. It is a rare condition due to vascular compression of 3rd part of duodenum by superior mesenteric artery as it passes over this portion of duodenum. Presents with profound nausea and vomiting abdominal distention, weight loss and post prandial epigastric pain which varies from intermittent to constant depending on the severity of duodenal obstruction. Weight loss usually occurs before the onset of symptoms and contributes to syndrome. This syndrome most commonly seen in young asthenic with women being commonly affected. Predisposing factors aside from weight loss, include supine immobilisation, scoliosis. Vascular compression of duodenum has been reported in association with anorexia nervosa and after proctocolectomy and j pouch anal anastomosis, resection of arteriovenous malformation of cervical cord, abdominal aortic aneurysm repair and orthopedic procedures, usually spine surgery. Diagnosis is made by barium upper gastro intestinal series or hypotonic duodenography, which demonstrate abrupt or near total cessation of barium flow from duodenum to jejunum. Contrast CT has also added advantage of abnormal vascular anomaly. Management can be done by initial conservative measures and operative measures in form of duodenojejunostomy.