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A RARE PRESENTATION OF SMAS (SUPERIOR MESENTERIC ARTERY SYNDROME) SECONDARY TO DUODENAL ADENOCARCINOMA

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ABSTRACT Superior mesenteric artery (SMA) syndrome (also known as Wilkie's syndrome, cast syndrome is an obstruction of the duodenum caused by extrinsic compression between the SMA and the aorta with median age of patients is 23 years old and predominant in females over males with a ratio of 3:2. Patient early diagnosis is required for Because recurrent vomiting leads to aspiration pneumonia or respiratory depression via metabolic alkalosis. The useful diagnostic modalities are computed tomography and ultrasonography, The primary treatment is conservative, including postural change, gastroduodenal decompression, and nutrient management. If conservative therapy fails, surgical treatment (i.e., laparoscopic duodenojejunostomy) is recommended. We are presenting a case of superior mesenteric artery syndrome secondary to duodenal carcinoma.

KEYWORDS : Superior mesenteric artery syndrome, wilkie's syndrome,duodenal adenocarcinoma

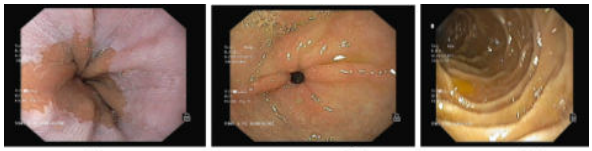
INTRODUCTION: :

Superior mesenteric artery syndrome (SMAS) has previously been described under various other names, including duodenal ileus and Wilkie syndrome. Various causes such as extreme weight loss, post scoliosis surgery are described however duodenal adenocarcinoma is the rare cause. Patients usually present with symptoms of small bowel obstruction such as abdominal distention, abdominal pain and cramping, halitosis, constipation, vomiting

CASE: A 44 year old male resident of West Bengal presented with complains of vomiting for 7 months and constipation for 7 day. Patient per abdominal examination was normal. Patient had anemia with hypokalemia and mild hyponatremia (table 1). Patient gastroscopy showed LA grade A esophagitis (figure 1), CECT abdomen showed reduction in the aorto-mesenteric distance measuring 5.5 mm and aorto-mesenteric angle was < 17 degrees; suggesting a diagnosis of SMAS (figure 2). Patient was transferred to surgical gastroenterology department and underwent segmental resection followed by duodenojejunostomy, intraoperative findings suggestive of distended stomach and duodenum till duodenojejunal flexure, a lesion was noted at D4 ?Suspicious of malignancy, biopsy finding was s/o Adenocarcinoma Grade 2.Medical Oncology opinion was taken and patient was started on adjuvant chemotherapy

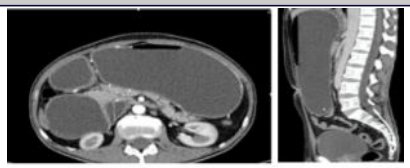
Table 1

Haemoglobin	Total leucocyte count	Platelate count	creatinine	Total Bilirubin	Direct bilirubin
9.8 g/dl	9400 cells/cumm	353000 lakh/cumm	0.96 mg/dl	1.2 mg/dl	0.20 mg/dl
AST 36 U/L	ALT 34U/L	Sodium 131meq/l	Potassium 3.01 meq/l	Chloride 78 meq/l	Serology Negative



(a) (b) (c)

Figure 1. Gastroscopy (a) GE junction (b)Antrum © D2



(a) (b)

Figure 2. CECT abdomen (a)axial (b)Sagittal

DISCUSSION:

The prevalence of SMAS has been estimated to be 0.13-0.3% with not satisfactory treatment outcomes.1 Diagnosis of SMAS is dependent on the barium meal findings of duodenal dilation, retention of barium within the duodenum and characteristic vertical linear extrinsic pressure in the third part of the duodenum2, previously angiographic measurement of the aortomesenteric angle was considered the gold standard of diagnosis; an aortomesenteric angle of <22-25˚ and a distance of <8 mm were observed to correlate well with SMAS.3 Diagnosis of small bowel obstruction due to SMA syndrome was confirmed via a CT scan. Treatment includes NJ tube insertion with parenteral nutrition ,if it fails then surgery including Treitz ligament division, gastrojejunostomy, subtotal gastrectomy and Billroth II gastrojejunostomy and duodenojejunostomy may be performed4. Duodenal adenocarcinoma causing SMA syndrome is even rare and only few case reports are described. Small bowel adenocarcinoma accounts for only 2% of all gastrointestinal carcinomas.5 We hereby report a rare case of duodenal adenocarcinoma causing SMAS with good response to treatment

CONCLUSIONS: Treatable cause like duodenal adenocarcinoma should be looked for in all cases of superior mesenteric artery syndrome.

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