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Villous Adenoma of Duodenum Mimicking Intussusception

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Abstract:- The case report discusses case of 32 years female with a large pedunculated villous adenoma which was mimicking intussusception of duodenum. Almost all such lesions can be visualized endoscopically, but, large lesions which cause luminal obstruction pose a difficulty.

Keywords:- *Villous Adenoma, Intussusception, Esophagogastroduodenoscopy, Lateral Duodenotomy.*

I. INTRODUCTION

Villous adenomas of duodenum are uncommon. They were first described by Perry in 1893[1]. Most duodenal polyps are found incidentally at endoscopy performed for unrelated reasons. They are usually asymptomatic. Symptoms caused due to duodenal polyps include atypical dyspepsia, abdominal pain, gastrointestinal bleeding, vomiting, obstruction, intussusception, and anaemia. The symptoms depend on the size, relative position, and histological characteristics of polyps[2]. Tubulo-villous tumours of the duodenum account for less than 1% of all duodenal neoplasm 88% of which are in the second part of duodenum[3]. Tubullovillous adenoma occurs sporadically and are also associated with genetic syndromes such as Familial Adenomatous Polyposis (FAP) & Gardner's syndrome[4,5]. The natural history of these polyps is poorly understood. The risks and benefits of interventions are rarely reported, and certainly not over long periods of follow-up.

II. CASE REPORT

A 32 years female with known case of hypothyroidism for 2 years, presented to us with complaint of vomiting on and off, usually after taking meals from 1 year and history of loss of weight and appetite from 6 months. On general physical examination she was lean and thin built with pallor and dehydrated. On abdominal examination there was no positive finding. All the laboratory investigations were done. Hb was found to be 5 g/dl with microcytic hypochromic blood picture, albumin 2.9 g/dl, rest all the investigations were within normal limits. Patient was planned for EGD (esophagogastroduodenoscopy). On EGD lower oesophageal sphincter was found lax and the stomach was found full of food residues taken previous night with erythema and scattered erosions in antrum, first part of duodenum was full of liquid food residue and the 2nd part could not be visualised due to plenty of food residue in the lumen, with rapid urease test negative for H. Pylori. Contrast enhanced CT- scan of abdomen (figure 1,2) was done and it was suggestive of intussusception with invagination of 2nd and 3rd part of duodenum within 4th part of duodenum and proximal jejunum giving a target like appearance causing subacute obstruction with subsequent grossly dilated proximal duodenum and stomach, mild dilatation of CBD and MPD was also found. Patient was planned for surgery and two units of blood transfusion were done preoperatively. Exploratory laparotomy was done, hepatic flexure of colon was mobilised and gastrocolic ligament was divided and an extended Kocher manoeuvre was done to visualise and mobilize the duodenum. Palpation demonstrated an intraluminal mass extending from 2nd part of duodenum to proximal jejunum. Lateral duodenotomy of second part of duodenum was done and a long pedunculated polypoidal mass 5x4 cm (Figure 3, 4, 5) arising laterally from wall and protruding intraluminal to 3rd part of duodenum, was excised along with the duodenal mucosal margin. The stomach along with proximal duodenum was distended and the distal jejunal and ileal loops were collapsed. The specimen was removed, and gross pathology revealed 5x4x2.5 cm globular friable mass. On histopathology features of villous adenoma (figure 6 a, b) were seen with mild to moderate epithelial dysplasia with no infiltration into core of excised mass.

Postoperatively one unit of blood transfusion was done. Ryle's tube was removed on day 2 and light orals were started and gradually increased in quantity in subsequent days. On follow-up at 1 month she was symptom free, her appetite had improved and there was no fresh complaint.

III. DISCUSSION

The prevalence of duodenal polyps is 0.3–1.5% in patients referred for upper GI endoscopy[6]. Duodenal adenomas are divided into three grades (WHO classification) i.e., tubular, tubulovillous, and villous adenoma[7]. Tubular adenoma being most common, accounting for about 75– 80%[8]. The villous or tubulovillous adenoma in duodenum have a higher malignant potential than ordinary adenoma and frequently contains focal cancer[9,10]. Most villous adenomas are found in the second part of duodenum, those that arise in the ampulla and periampullary region have 30-60% malignant transformation rate. Most cases of villous duodenal tumours are sporadic, and also occur in patients with Gardner syndrome or familial adenomatous polypoid syndrome[11]. The average age at diagnosis is 56 years, and no sex predilection has been reported. There may be no symptoms other than vague dyspepsia, but patients also may present with obstructive jaundice, depending on the location of the tumour, vomiting if luminal obstruction is present as in our case. Occult bleeding is most common

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sign of a villous duodenal adenoma, bowel obstruction is second most common sign[12]. The CT appearance of villous duodenal adenomas is nonspecific, they have variegated attenuation and variable enhancement patterns. CT is useful for determining the extraluminal extent of invasive tumours and assessing regional lymphadenopathy. Differential diagnosis includes the lesions of epithelial origin and mesenchymal origin.

Epithelial tumours in origin have mucosal location and those of mesenchymal have submucosal location. Benign neoplasms include gastrointestinal stromal tumours, lipomas, leiomyomas, adenomas (tubular, villous, and Brunner gland), and hamartomas. Mesenchymal tumours are the most common benign duodenal tumours, and adenocarcinomas are the most common malignant tumours. Endoscopy should be performed in all the cases of upper GI tumours, however, in our case it was inconclusive because of large obstructing polypoidal lesion. The treatment of villous tumour of the duodenum depends on the presenting symptoms, size, location. Endoscopic biopsy followed by surgical excision is indicated for villous adenoma because of the high incidence of malignant degeneration[13].The operative approach usually performed for benign villous adenoma of the duodenum is a wide local resection, submucosal resection or simple excision[14].

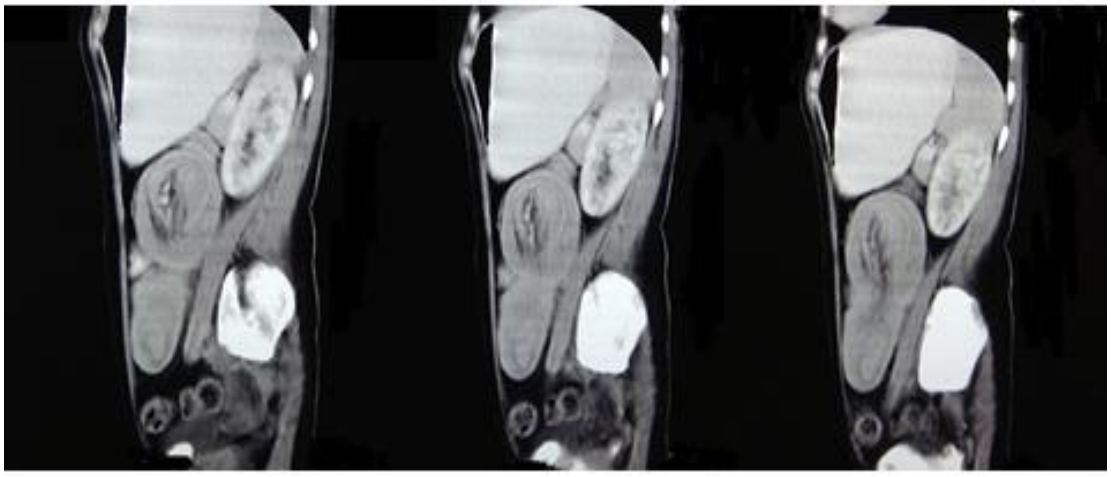

Fig 1:- Sagittal section showing loop in loop pattern

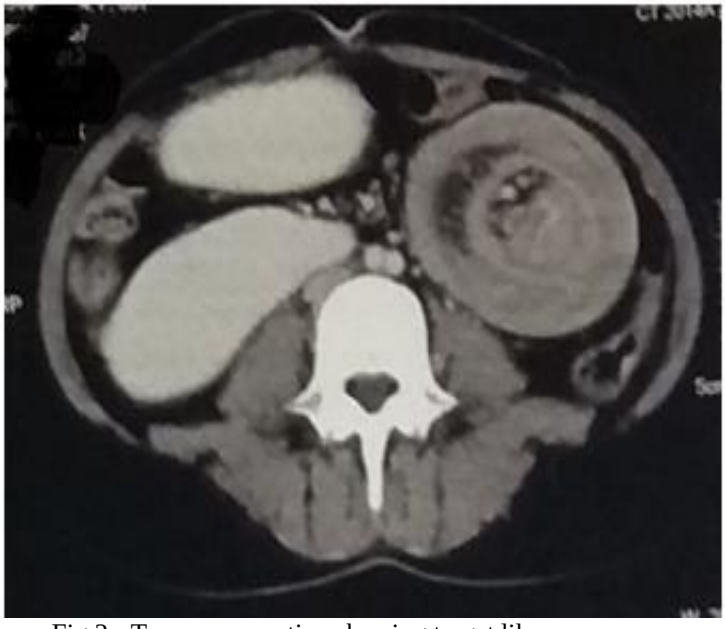

Fig 2:- Transverse section showing target like appearance.

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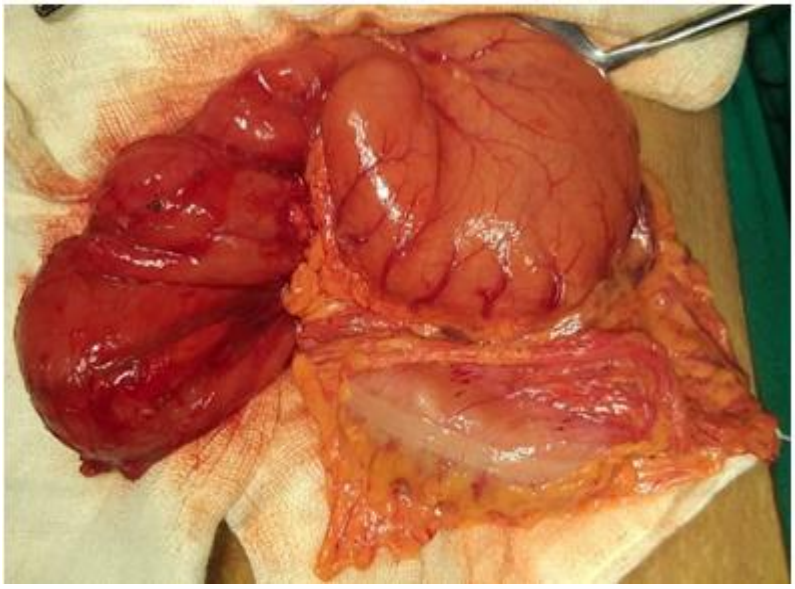

Fig 3:- shows distended stomach and distended duodenum.

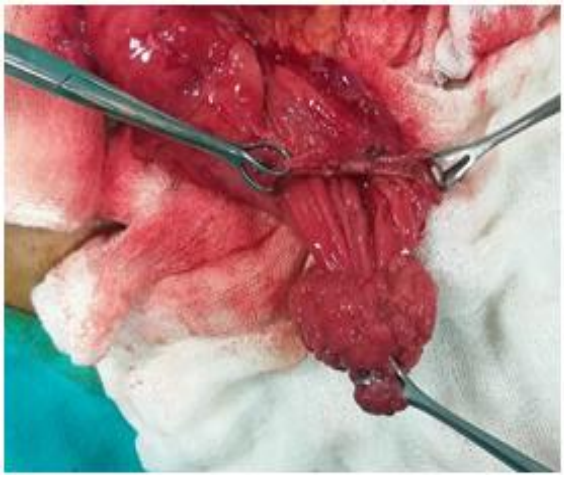

Fig 4

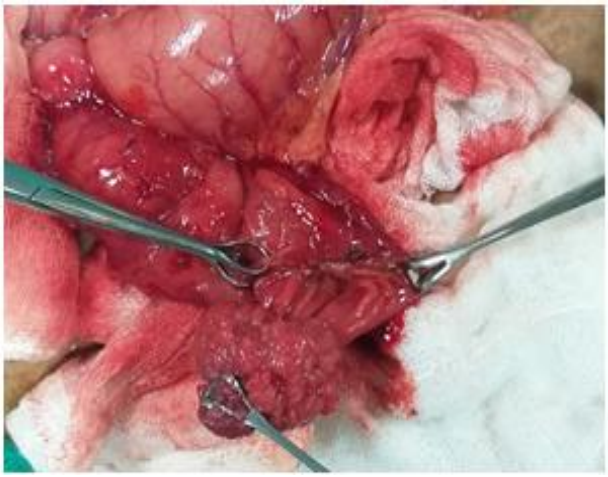

Fig 5

Fig 4, 5:- lateral duodenotomy done and long pedunculated polypoidal mass delivered out.

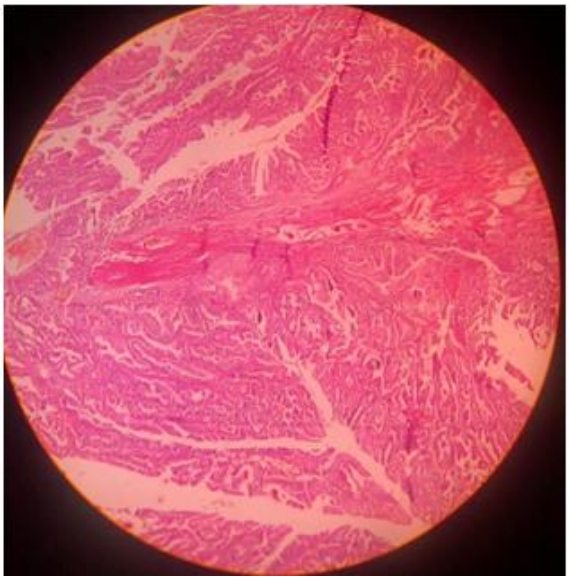

Fig 6 a

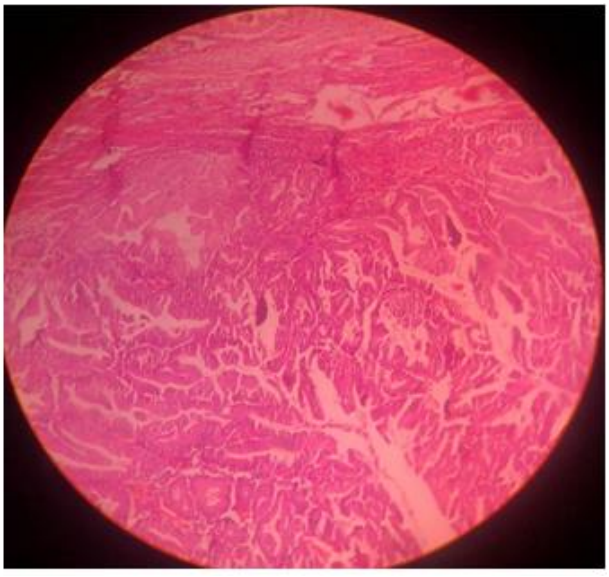

Fig 6 b

Fig 6:- a and b show the microscopic features of the excised duodenal villous adenoma.

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