Duodenal Tubulovillous Adenoma

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Introduction
Primary tumors of the small intestine are quite uncommon. Its incidence is equal to 1/10th of the same lesions in the colon. Tubulovillous tumors of the duodenum account for less than 1% of all duodenal neoplasms, about 88% of which are located in the second part of the duodenum. The remaining 12% are equally distributed in first and third part of the duodenum. Tubulovillous adenoma occurs sporadically or in the context of genetic syndromes such as Familial Adenomatous Polyposis (FAP) & Gardner's syndrome. It occasionally causes bleeding or obstruction of the duodenum or ampulla of Vater. It is usually diagnosed incidentally on upper Gastro Intestinal endoscopy, Familial Adenomatous Polyposis surveillance and evaluation of symptomatic ductal obstruction. Malignant transformation to ampullary cancer is approximately 15-25% overall but higher once the tumor size is greater than 2 cm that is why it is important to perform biopsy, resect, and survey these lesions. Recurrence is common after local excision and may be malignant.

Case Report
A 60 years old lady presented to Surgical Outdoor Department of Holy Family Hospital with three months history of painless, progressive obstructive jaundice, weight loss and one month history of generalized itching. Itching started gradually, generalized all over the body especially hands, forearms and abdomen. It was Intense and irresistible at times. There was a history of pale colored stools, dark colored urine, on and off melena, undocumented weight loss and reduced appetite. There was no history of abdominal pain, fever, epigastric discomfort, hematemesis, vomiting, constipation or diarrhea. There was no history of Familial Adenomatous Polyposis or colorectal carcinoma in first degree relatives.

Physical examination revealed soft and non-tender abdomen with a 3x2 cm reducible swelling palpable in epigastrium. Laboratory Investigations showed raised total serum Bilirubin level (14.3 mg/dl), raised Alkaline Phosphatase (ALP, 1238 IU/L) and raised Alanine Amino Transferase (ALT, 272 IU/L).

Serum electrolytes, serum amylase and clotting profile was observed to be normal.

After initial workup she was referred to the radiology department for imaging studies. Ultra sound abdomen showed dilated intra-hepatic biliary channels with common bile duct (CBD) measuring up to 1.7 cm, distended gall bladder with normal appearing pancreas and 1.5x1.8 cm growth at distal end of CBD. CT scan (computed tomographic scanning) abdomen revealed moderate dilatation of Intra & extra hepatic biliary channels and dilated CBD up to its lower end. The pancreas was normal. Endoscopic Ultrasound showed 16.3x15 mm mass at ampullary region.

Endoscopic retrograde cholangio-pancreatography (ERCP) was scheduled which showed hugely dilated CBD (i.e. 2 cm) till the distal end and a mass at the tip of ampulla. 10x5 cm double pigtail plastic stent placed at the ampulla to achieve free drainage of the bile. Four separate specimens were taken from ampulla for biopsy.

Results of ERCP guided biopsy showed papillary formation lined by cells showing mild atypia. All these findings were consistent with the diagnosis of Tubulovillous adenoma of the duodenum. Whipple procedure (Pancreaticoduodenectomy, Choledochojejunostomy, Pancreaticojejunostomy, Gastrojejunostomy and Cholecystectomy) was done along with T-tube placement and feeding jejunostomy. Patient was allowed oral sips on 4th and soft diet on 5th post op day, that was well tolerated. She was discharged on 10th post-op day and was called for follow up after 10 days for cholangiogram and T-tube removal.

Discussion
Adenomas are considered to be the common tumours of colon. Endoscopic studies on the duodenal lesions show that the incidence of duodenal adenoma in all patients referred to diagnostic endoscopy is 0.4%. They are unusual finding in the small intestine especially in the upper part of the small intestine e.g. duodenum. Villous tumor of the duodenum (VTD) was first described by Perry in 1893 and he called it duodenal papilloma. These lesions are quite uncommon as Komorowski and Cohen in a 1981’s review reported only 73 cases. Tubulo-villous...
tumors of the duodenum account for less than 1% of all duodenal neoplasms. There are various pathological terms used for various stages of the tumor i.e. villous adenoma, villous papilloma, papillary adenoma, tubulovillous adenoma, and villoglandular polyp.

Duodenal villous and Tubulovillous tumors may be clinically completely non-symptomatic and are discovered on endoscopy for some other reason or may present with the signs and symptoms Intermittent or progressive jaundice (obstructive jaundice), abdominal pain, hematochezia or melena and weight loss, hard areas on palpation, an ulcerated tumor, dilatation or extensive involvement of the common bile duct and/or pancreatic duct on preoperative imaging. Other less common presentations may be pancreatitis, duodenal obstruction, Intussusceptions, fever and general malaise.

The diagnosis is confirmed by the Biopsy taken from the mass present around the ampulla of Vater. Varying degree of atypia may be found in the specimens taken for biopsy. Various surgical techniques are used for the curative resection ranging from endoscopic polypectomy to Wipple's procedure (Decision is based on the Histopathology report, size and extent of the tumour).

**Conclusion**

Tubulovillous adenoma of the small intestine and particularly of the duodenum is one of the very rare tumors. But its reported incidence is on rise due to the wide spread availability and use of the upper gastrointestinal endoscopy.

**References**