

## **Adenocarcinoma of Duodenojejunal junction: A case report**

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## **CASE REPORT**

### **ABSTRACT**

Adenocarcinoma of duodenum contributes only 0.3-0.4% among all Gastrointestinal malignancies though 75% of all duodenal malignancies are adenocarcinoma. The reported incidence has been increasing due to the widespread use of endoscopy. Adenocarcinomas are the most common of small bowel malignancies, followed by carcinoid tumours, lymphomas, and leiomyosarcomas. We have reported adenocarcinoma in 60 years male. Surgery is the only means of cure. More evidence is needed to help define the role of segmental duodenectomy and chemotherapy in the management of this disease.

### **Key Words**

Adenocarcinoma, duodenum, duodeno-jejunal junction.

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## **INTRODUCTION**

Adenocarcinoma of duodenum contributes only 0.3-0.4% among all Gastrointestinal malignancies though 75% of all duodenal malignancies are adenocarcinoma.<sup>1</sup> The reported incidence has been increasing owing to the widespread use of endoscopy. Adenocarcinomas are the most common of small bowel malignancies, followed by carcinoid tumours, lymphomas, and leiomyosarcomas. Around half of all small bowel adenocarcinomas are located in the duodenum, making this the most favoured site.<sup>2</sup> We recently came through a case of this rare tumour of small intestine which was causing intestinal obstruction.

## **CASE REPORT**

A 60 year old male presented with pain in abdomen since last three months. His pain was aggravated after taking meals and was associated with nausea and bilious vomiting for last one month. Patient has also noticed loss of weight and loss of appetite for last one month. The general examination of patient was normal. There was no generalized lymphadenopathy, icterus, pallor, cyanosis or clubbing. His pulse rate was 96 bpm and blood pressure was 130/70 mm of Hg in right upper arm in supine position. On examination, abdomen was found to be soft, mildly tender in epigastric

and left hypochondriac region, non-distended and his bowel sounds were sluggish. Guarding and rigidity were absent. Patient's abdominal ultrasonographic report showed mild irregular circumferential thickening of duodeno-jejunal junction along with mesenteric lymph node enlargement. Barium meal follow through study of patient was suggestive of partial obstruction and stricture at duodeno-jejunal flexure (figure 1). Upper Gastrointestinal endoscopic examination revealed antral gastritis and Grade I oesophagitis. Computed tomographic scan of abdomen showed solid mass circumferentially involving duodeno-jejunal flexure with all other abdominal viscera being normal.



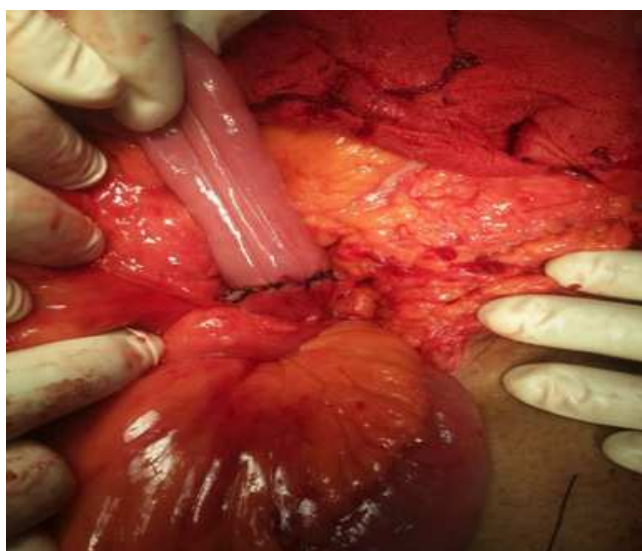
**Figure 1 Image showing widening of C-loop of duodenum in Barium Meal Follow Through**

A provisional diagnosis of duodeno-jejunal tumour was made and an exploratory laparotomy for resection of the tumor was planed. Intraoperatively, a 2 cm circumferential mass was found at duodeno-jejunal junction along with few enlarged mesenteric lymph nodes. (figure 2) A curative resection of mass was done with 1 cm healthy margin and an end-to-end duodeno-jejunal anastomosis was done. (figure 3 and 4) A feeding jejunostomy was made to secure anastomosis and the specimen was sent for histopathological examination which revealed it to be mucous secreting adenocarcinoma.



**Figure 2 Image showing tumour at duodeno-jejunal junction**

Patient recovered well post-operatively and oral feeding was started after seven days. He was discharged on eight days after surgery with feeding jejunostomy in-situ. The patient was asked to follow-up in surgical OPD after 15 days. On follow-up as patient was tolerating oral feeds well and was comfortable, his feeding jejunostomy was removed.



**Figure 3 Image showing end to end duodeno-jejunal anastomosis**



**Figure 4 Image showing longitudinal section of resected specimen**

## DISCUSSION

Adenocarcinoma of the duodenum is a rare tumor, contributing less than 0.4% in all gastro-intestinal tract tumours but about 45% of these tumours arise from the third and fourth part of the duodenum while it is being less common in fourth part than third part of duodenum.<sup>3,4</sup> The age of presentation reported is usually in the 5<sup>th</sup> to 6<sup>th</sup> decade of life.<sup>5</sup>

The presentation of this disease is vague and non-specific. Patients can present with abdominal pain, bleeding, weight loss, obstruction or jaundice. Therefore a differential diagnosis should be made in patients presenting with epigastric discomfort. First-line investigations remain oesophagogastroduodenoscopy and contrast studies, which can usually demonstrate the site, severity and length of the lesion. While more proximal tumours can be picked up by oesophagogastroduodenoscopy, more distal tumours are more commonly found using radiology-contrast studies, computed tomography and more recently PET. Nonetheless, computed tomography is required in all biopsy-confirmed cases for staging and treatment planning. Endoscopic ultrasound may help by measuring the thickness of the lesion and allowing deeper biopsy of the lesion. Alternatively, especially when the obstruction does not allow the scope to pass, computed tomography and PET can help. The demonstration of a mass lesion necessitates an operation. An intra-operative frozen section may be required to reach a final diagnosis and guide the surgery.

Metastasis to lymph nodes, advanced tumour stage and positive resection margins are associated with poor prognosis in patients with duodenal adenocarcinoma. An aggressive surgical approach that achieves complete tumour resection with negative margins should be performed for better prognosis. Pancreaticoduodenectomy (Whipple's operation) is usually required for cancers of the first and second portion of the duodenum while segmental resection may be appropriate for tumours of the distal duodenum.<sup>6</sup>

Findings indicate that an aggressive surgical approach should be pursued to improve outcome.<sup>7</sup>

The 5-year survival rate after curative resection of adenocarcinomas of the duodenum ranges from 50% to 60%.<sup>8</sup> In cases where the tumour has advanced beyond the possibility of curative resection, bypass surgery and stenting have a palliative role. Radiotherapy is not applicable as the tumour is radio-resistant and the small bowel has poor tolerance to radiation. Chemotherapy has no role in primary treatment and there is only limited information about its use as an adjuvant treatment. It is mainly reserved for recurrent disease.

## CONCLUSION

Adenocarcinoma of the duodenum remains a rare disease, though the prevalence appears to be rising, possibly due to improved diagnostic techniques. Surgery is the only means of cure. More evidence is needed to help define the role of segmental duodenectomy and chemotherapy in the management of this disease.

## REFERENCES

1. Spira IA, Ghazi A, Wolff WI. Primary adenocarcinoma of the duodenum. *Cancer*. 1977; 39(4): 1721-1726.
2. Dabaja BS, Suki D, Pro B, Bonnen M, Ajani J. Adenocarcinoma of the small bowel: presentation, prognostic factors and outcome of 217 patients. *Cancer* 2004; 101: 518-26.
3. Tocchi A, Mazzoni G, Puma F, et al. Adenocarcinoma of the third and fourth portions of the duodenum: results of surgical treatment. *Arch Surg* 2003; 138(1): 80-5.
4. Hu JX, Miao XY, Zhong DW, Dai WD, Liu W, Hu W. Surgical treatment of primary duodenal adenocarcinoma. *Hepato-Gastroenterology* 2006; 53(72): 858-862.
5. Sahu SK, Singh PK, Singh BP, Raghuvanshi S, Sachan PK. Adenocarcinoma of duodenum at the duodenojejunal flexure. *Jurnalul de chirurgie* 2013; 9(3): 253-256.
6. Bakaeen FG, Murr MM, Sarr MG, Thompson GB, Farnell MB, Nagorney DM, Farley DR, van Heerden JA, Wiersema LM, Schleck CD, Donohue JH. What prognostic factors are important in duodenal Adenocarcinoma? *Arch Surg*. 2000; 135(6): 635-41.
7. Lee HG, You DD, Paik KY, Heo JS, Choi SH, Choi DW. Prognostic factors for primary duodenal adenocarcinoma. *World J Surg*. 2008; 32(10): 2246-52.
8. Sarela AI, Brennan MF, Karpeh MS, Klimstra D, Conlon KC. Adenocarcinoma of the duodenum: importance of accurate lymph node staging and

similarity in outcome to gastric cancer. *Ann Surg Oncol* 2004; 11: 380-6.

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## CONFLICTS OF INTEREST

Nil

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