



Case Report

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Papillary Adenocarcinoma of the Third Part of the Duodenum: A Case Report



Purushottam Kumar*, Manoj Kumar, Nishit Ranjan, Mushir Reaz and Subhash Kumar

Department of General Surgery, AIIMS, India

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*Corresponding author: Purushottam Kumar, Senior Resident, Department of General Surgery, AIIMS, Patna, Pin -801505, Bihar, India, Tel: 7484839210; Email: drpkumar2k3@gmail.com

Abstract

My patient, 70 year old female, presented with adenocarcinoma of third part of duodenum, treated with segmental resection of the third part of the duodenum. This tumor is very rare and generally affects the III and IV duodenal portion. Diagnosis and the exact localization of this tumor are important factors for deciding the type of surgical treatment. Diagnosis is confirmed by endoscopy and biopsy. Pancreaticoduodenectomy and segmental resection of the duodenum are the two options of treatment.

Keywords: Carcinoma of duodenum; Third part of the duodenum; Pancreaticoduodenectomy; Segmental resection

Introduction

Primary adenocarcinoma of the duodenum is reported less frequently due to rare disease (0.3 -0.5 % of all gastrointestinal malignancies), vague clinical presentation, difficult to diagnosis by endoscopy. Therefore, we will discuss the clinical presentation, diagnosis and treatment of this malignancy.

Case Report

A 70-year-old woman was admitted with a complaint of vomiting after intake of meal. Upper gastrointestinal endoscopy revealed large nodular growth in 3rd and 4th part of duodenum (Figure 1), and the endoscopic biopsy showed an early invasive adenocarcinoma of the duodenum. Computed tomography of the abdomen revealed (25*20) mm heterogeneously enhancing endophytic mass at D2 -D3 junction noted from inferior wall of duodenum causing partial obstruction (Figure 2). Laparotomy did not reveal direct invasion into the pancreas, liver, peritoneal dissemination, ascitis, or distant metastasis. There was a tumor involving 3rd part of duodenum detected after duodenotomy in 3rd part of duodenum. After that, surgeon decided to avoid a duodeno -pancreatectomy and opted segmental resection of the duodenum (SRD) with a end to end anastomosis. A growth noted about 2 cm away from ampilla of vater, 1 cm tumor free proximal margin dissected and segmental resection of the growth in D3 part of duodenum done, with end to end anastomosis. Histological examination showed papillary adenocarcinoma of the third part of the duodenum with margin free from tumor. Thus definitive diagnosis was primary adenocarcinoma of the 3rd portion of

the duodenum, exact site was detected intraoperatively. Her postoperative course was uneventful, followed at 2 week, 1 month, 3 month; 6 month. She is without any sign of recurrence 6 month later.

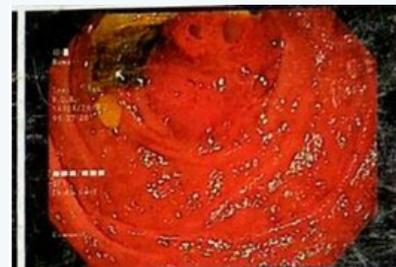


Figure 1: Upper gastrointestinal endoscopy showing a tumor around the circumference with stenosis at distal portion of the papilla of Vater. Endoscopic biopsy specimen showing a adenocarcinoma of the duodenum.

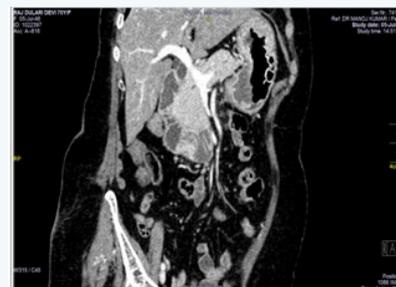


Figure 2: Abdominal computed tomography scan showing an irregularly thick wall of the 3rd portion of the duodenum.

Discussion

Primary adenocarcinoma of the duodenum is a rare malignant tumor, accounting for 0.3 - 0.5 % of all gastroenteral malignancies [1,2]. 1-15% tumors are located in the 1st portion, 50-75% in the 2nd portion, 14-33% in the 3rd portion, and 5-17% in the 4th portion of the duodenum [3-5]. Adenocarcinomas of the 3rd and 4th portions of the duodenum are detected by endoscopy with great difficulty. Other tests are capsule endoscopy, double-balloon enteroscopy, CECT - abdomen. Five-year survival rate for resection of the 3rd and 4th portions of the duodenum was 58%, whereas that of 1st and 4th portions was 32% [6].

Early stage duodenal carcinoma is treated by endoscopic mucosal resection. Advanced stages of duodenal carcinoma require pancreaticoduodenectomy (standard treatment) or segmental resection of the duodenum. Segmental duodenectomy is the preferred resection method for patients with adenocarcinoma of the 3rd and 4th portions of the duodenum [7]. Drainage of the lymph nodes seems different in the I and II duodenal portion compared to the III or IV. The first ones seem to rush to anterior and posterior pancreaticoduodenal chains of lymph nodes; the second ones seem to drain into the chains of lymph nodes of the upper mesenteric [8]. Therefore, pancreaticoduodenectomy, and segmental resection would have the same clearance of the lymph nodes for tumors of the III and IV duodenal portion.

Our patient had an early invasive adenocarcinoma without lymph node metastases, liver metastasis, peritoneal metastasis, or ascites. There was a tumor involving 3rd part of duodenum detected after duodenotomy done in 3rd part of duodenum. A growth noted about 2 cm away from ampilla of Vater, so, 1 cm

tumor free proximal margin dissected and segmental resection of the growth in D3 part of duodenum done, with end to end anastomosis. She is doing well without any sign of recurrence 6 month later.

Conclusion

Adenocarcinoma of the 3rd portion of the duodenum is rare. This report describes a case of primary adenocarcinoma of the 3rd portion of the duodenum, diagnosed by endoscopy and biopsy, treated by segmental resection of the duodenum.

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