

Transduodenal Excision Of Ampullar Adenoma; Case Report

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Abstract

Introduction: Diagnosis/treatment/follow-up of ampullar adenomas are tough cases for clinicians because of their localizations. Treatment of ampullar adenomas has a wide range from endoscopic excision to pancreaticoduodenectomy (PD) where transduodenal ampullectomy (TdA) is one of them. This case report aimed to share our experiences about ampullar adenoma, which endoscopic excision was not able to be applied and TdA was successfully performed.

Case Report: 72-years-old-male patient applied to gastroenterology clinic with incidentally diagnosed increase at cholestatic enzymes. Patient was diagnosed as ampullar adenoma, which was endoscopically excised. The histopathologic evaluation was reported as 2.5x2.5x1.5cm low grade dysplastic ampullar adenoma with minimal high grade dysplasia and positive surgical margins. The patient applied to our clinic and TdA was planned to the patient considering him not having invasive tumour diagnosis, his age and comorbidities. TdA was successfully performed with negative surgical margins. Postoperative bile drainage as observed and medical treatment for 25 days was applied. The bile leakage interrupted on postoperative 25th day and patient was discharged on 29th day.

Conclusion: Surgery is the only alternative to endoscopic excision for ampullar adenoma and TdA is superior to PD when no invasive tumor is diagnosed and ASA score of the patient is high. For this reason we believe that TdA is a feasible technique for ampullar adenomas if the adenoma is not suitable for endoscopic resection because of its size or if the resection margins of the adenoma with dysplasia are positive

Keywords

Ampullar adenoma, Pancreaticoduodenectomy, Transduodenal ampullectomy

Introduction

Ampullar adenoma is located at the ampulla of the duodenum where the choledoch and main pancreatic canal opens out to the second portion of duodenum either constituting a confluence of separately. The behavior of the ampullar adenoma is important for the management of the treatment. The management of the ampullar adenomas has a wide range from endoscopic resection to pancreaticoduodenectomy (PD) (1).

The adenomas that are found to be invasive and diagnosed as malign, which is called adenocarcinomas; has only treatment option of PD with lymph node dissection. However PD is a highly mortal and a morbid surgery with three anastomosis. So less invasive techniques should be applied for the patients with ampullar adenomas, instead of PD. The choices are endoscopic resection of the adenoma and one step over is the transduodenal ampullectomy (TdA).

Beside TdA is only suggested for non-invasive ampullar masses as mentioned above, debates for TdA at T1 adenocarcinoma of ampulla continues. TdA may be applied especially for poor conditioned patients with early ampullar adenocarcinoma of T1. At this case report, we discussed the literature data of TdA for ampullar adenomas under the light of a 72 years old male patient with endoscopically resected surgical margins positive ampullar adenoma.

Case Report

Male patient aged 72, applied to Gulhane Hospital gastroenterology clinic with incidentally diagnosed increase at cholestatic enzymes and minimal jaundice. Patient was further evaluated by radiology and found out to have minimally dilated intra-extrahepatic bile ducts by ultrasound. Endoscopy was planned for the patient. Diagnostic endoscopy reported smooth surfaced ampullar mass of approximately 2 cm. There was no sign of invasion to intestinal wall during endoscopic ultrasound. Endoscopic resection for the mass was planned and performed successfully without any complications. Stent was applied to choledoch after the procedure. Patient was hospitalized for 1 day and discharged. 5 days after the endoscopic resection of the ampullar mass, cholestatic enzymes of the patient turned out to be between normal ranges. The histopathologic evaluation of the ampullary mass was reported as 2.5x2.5x1.5cm low grade dysplastic ampullary adenoma with minimal high grade dysplasia and positive surgical margins.

The patient applied to our clinic and TdA was planned to the patient considering him not having invasive tumor diagnosis, his age and comorbidities. TdA was successfully performed with negative surgical margins. However bile leakage was detected at the drain on postoperative day two without any constitutional symptoms. Computerized tomography with intravenous and oral contrast showed no extravasation of the contrast from the duodenum. Patient was planned for conservative treatment of probable low-flow duodenal fistula with antibiotics. The bile leakage interrupted on postoperative 25th day and patient was discharged on 29th day. Informed consent was obtained from the patient to report the case.

Discussion

Ampullar adenoma is most frequently diagnosed incidentally. However, increased bilirubin levels, recurrent pancreatitis or chronic abdominal pain may be the first symptoms of ampullar adenoma. Diagnosis is rarely done by radiology. Computerized tomography and magnetic resonance imaging cannot directly diagnose the ampullar adenoma but may guide the physician for further diagnosis. The gold standard is endoscopy with endoscopic ultrasound (2, 3). Direct visualizing the lesion and even treating the lesion with snare assisted resection is possible.

Endoscopic ultrasound is also useful for evaluating the histological layers of the duodenum wall for the presence of the invasion. Endoscopic ultrasound evaluation may either be done with radial or linear probe. Superiority of one to other is not well defined and depends on the experience and habits of the endoscopist (4). Lesions not invading the wall may synchronously resected for cure. Suspicious lesions for wall invasion should be evaluated for surgery.

TdA is a feasible alternative for endoscopic resection of ampullar adenoma. The reason to apply TdA instead of endoscopic resection may be because of the size of the ampullar adenoma which is commonly accepted as lesions > 1 cm (5, 6). Debates continues about the size that Patel et al. decreased the upper limit for resection size to 6.5 mm (7). However, there is still no consensus about the size of the adenoma. Another reason to apply TdA instead of endoscopic resection may be because of the anatomical differences of the patient such as having a previous pyloric exclusion with gastroenterostomy surgery. Patients with poor performance scores are also reason for application of endoscopic resection (8). However the major reason for applying TdA at ampullar adenoma is as subsequent application after endoscopic resection as a result of positive surgical margins. If the histopathological report of the specimen states presence of dysplasia at various grades and continues at the resection margins, the only choice for the clinician is surgical resection. The most appropriate surgical approach is TdA for patients mentioned above but laparoscopic TdA may also be kept in mind for these patients (9).

TdA is only suggested for ampullar adenomas, however Lee et al. evaluated TdA for T1 ampullar adenocarcinomas (10). After median follow-up for 50 months, he found out that TdA is not feasible for T1 ampullar adenocarcinomas with statistically significant increased rates of local recurrence but feasible for Tis tumors. He stated that the most important factor for local recurrence is probably the lymph node metastasis for T1 adenocarcinomas which he found it as 10% for T1 adenocarcinomas of ampulla after PD. However, Hong et al. found out no local recurrence for T1 adenocarcinoma of ampulla after TdA with 26 patients and 74 months of mean follow-up duration (11). Still the debate continues for application of TdA at T1 adenocarcinomas of ampulla.

In our case, we applied TdA to the patient because of the patient's poor performance and because the ampullar adenoma was not invading the duodenal wall. During the long term follow up, patient had no recurrence. By applying TdA to the patient after inefficient endoscopic resection, we also supported the idea of TdA being a feasible alternative to endoscopic resection. Even though we had leakage after TdA, patient didn't need re-laparotomy with conservative approach and was discharged without any other complications.

In conclusion, TdA is a feasible technique for ampullary adenomas if the adenoma is not suitable for endoscopic resection because of its size or if the resection margins of the adenoma with dysplasia are positive. Debates continue for TdA for T1 adenocarcinoma especially for patients with poor performance scores.

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