Transduodenal Ampullectomy: Its Role on Ampulla of Vater Tumor

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Background: Tumors from ampulla of vater has various histologic characters from benign to malignant. It is difficult to get accurate diagnosis with preoperative biopsy. Recently, endoscopic papillectomy has been tried for the management of periampullary adenomas. But surgical resection is treatment of choice for periampullary tumors.

Objective: The aim of this study is to suggest the role of transduodenal ampullectomy, which is not a common procedure, in the management of ampulla of vater tumors by reviewing the results of single center experience.

Methods: Retrospectively reviewed patients who underwent transduodenal ampullectomy and endoscopic papillectomy from January, 1999 to December, 2008 at Samsung medical center. Patient demographics, symptoms, preoperative endoscopic biopsy, final pathology was reviewed. Post op outcomes were evaluated by length of hospital stay, post op complications and recurrence during follow up period.

Result: 26 patients underwent ampullectomy and 22 patients had endoscopic papillectomy during this time. 5 patients converted to pancreaticoduodenotomy (PPPD) due to involvement of resection margin or confirmed malignancy in frozen sections, 5 patients initially presented with jaundice or abdominal pain and the others were incidentally found on screening examination. For remnant or recurred adenoma after endoscopic papillectomy, 7 patients had additional endoscopic papillectomy or endoscopic biopsy and the other 4 patients had finally underwent surgery. For those with any suspicious test results for malignancy in preoperative study, transduodenal ampullectomy was performed. 1 patient with liver cirrhosis due to chronic hepatitis B was suspected of ampulla of vater cancer but transduodenal ampullectomy was done instead of pancreaticoduodenectomy, because of the risk of liver failure, 5 patients had post op complications and there was no mortality. Mean post operative hospital stay was 12 days. Mean follow up time for transduodenal ampullectomy was 23.4 months and 16.6 month for endoscopic papillectomy. Recurrence after transduodenal ampullectomy was found in 1 patient. Preoperative biopsy had matched with final pathology in 11 cases.

Conclusion: Transduodenal ampullectomy can be a treatment option for recurrent or remnant ampulla of vater tumors after endoscopic papillectomy, and benign ampulla of vater tumors
unresectable with endoscopic ampullectomy. Transduodenal ampullectomy can play a role as an intermediate step in treatment of ampulla of vater tumor, between endoscopic papillectomy and pancreaticoduodenectomy. Thereby, we can avoid unnecessary pancreaticoduodenectomy in benign ampulla of vater tumors.