

II-4

Comparison of Clinical Outcome and Cost-effectiveness after Various Preoperative Biliary Drainage in Periapillary Cancer with Obstructive Jaundice

Department of Surgery, Seoul National University College of Medicine, Korea

Suk Kyun Hong, Jin-Young Jang, Mee Joo Kang, In Woong Han, Sun-Whe Kim

Background: The clinical benefit of preoperative biliary drainage (BD) in periampullary cancer with obstructive jaundice is not well established yet, which includes PTBD, ERBD, or ENBD. There is no comparative study comparing these BD methods, and therefore, selection of preoperative BD method depends on clinicians' preference or hospital facility without strong evidence. The aim of this study is to compare the clinical outcome and cost-effectiveness of these preoperative BD methods in periampullary cancer, and to suggest guidelines for selecting the appropriate preoperative BD method.

Methods: Between October 2004 and August 2010, 211 patients underwent pancreatoduodenectomy (Whipple's operation or pylorus preserving pancreaticoduodenectomy) after preoperative BD due to periampullary cancer with obstructive jaundice in Seoul National University Hospital. Clinical outcome and cost-effectiveness of each preoperative BD methods were compared according to its final drainage method or by following the intention-to-treat analysis. ERBD and ENBD were considered as endoscopic BD group.

Results: Preoperative BD was performed in 211 patients, which include 107 PTBD (50.7%), 53 ERBD (25.1%), and 51 ENBD (24.2%) according to their final status. Considering tumor location, PTBD was more frequently performed in pancreas cancer (43.9% vs. 29.8%) while ENBD or ERBD was more frequently performed in distal CBD or ampulla of Vater cancer (70.2% vs. 50.4%; $p=0.001$). There was no difference in drainage duration between PTBD and endoscopic BD groups (14.2 vs. 16.6 days, $p=0.121$) but daily diminution of serum bilirubin level was higher in PTBD group (0.7 vs. 0.6 [mg/dL]/day, $p=.041$). Among endoscopic BDs, ERBD group had longer drainage duration than ENBD group (19.0 vs. 14.1 days; $p=0.029$) but

daily diminution of serum bilirubin was comparable (0.5 vs. 0.6 [mg/dL]/day, $p=.339$). Concerning procedure related complications, pancreatitis occurred more frequently in endoscopic BD than PTBD group (16.3% vs. 2.8%; $p=0.001$). Postoperative complication rate was comparable between PTBD and endoscopic BD group (43.0% vs. 46.2%, $p=.644$). Thirty-nine patients who were initially subjected to endoscopic BD switched to PTBD due to procedure failure (94.9 %) or ineffective biliary drainage (5.1%). Performing intention-to-treat analysis, drainage duration was shorter (13.2 vs. 16.5 days; $p=0.049$), daily diminution of serum bilirubin level was higher (0.7 vs. 0.6 mg/dL; $p=0.041$), and admission cost was lower (15.3 vs. 16.9 \times 106 won; $p=0.040$) in PTBD group than endoscopic BD group.

Conclusion: With intention-to-treat analysis, PTBD group revealed rapid serum bilirubin decline with shorter drainage duration and lower admission cost. Although the role of preoperative BD is still controversial, preoperative BD is needed in some situation. When selecting the method of BD, PTBD is more cost-effective and safe method compared to endoscopic BD.

II-5

20-Years Experience of Ampulla of Vater Cancer

Department of Surgery, Seoul National University College of Medicine, Korea

Mee Joo Kang, Jin-Young Jang, In Woong Han, Sun-Whe Kim

Research Purpose: Ampulla of Vater cancer has been reported to have most favorable prognosis in periampullary cancers. Moreover, superb prognosis of early ampullary cancer expanded its indication for ampullectomy. However, few studies have offered adequate pathologic details and long term outcome of ampullary cancers. The objective of this study is to investigate long-term outcome of ampulla of Vater cancer, and to explore predictive factors of lymph node metastasis in early ampullary cancers.

Materials and Methods: Data were collected from patients who underwent surgery at Seoul National University Hospital from 1990 to 2010 (median follow up: 34.5 m). Clinicopathologic characteristics of 391 patients with surgical biopsy proven ampulla of Vater