

The Association of Gallstone & Cholecystectomy with Metabolic changes or Intestinal bacteria

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Objectives: Gallbladder (GB) diseases including the status of gallstone or cholecystectomy could be associated with metabolic diseases or intestinal bacteria. However, their role has not been clarified. We investigate the relationship of GB diseases with fatty liver, hypertension, diabetes, metabolic syndrome, and small intestinal bacterial overgrowth (SIBO). **Methods:** We prospectively evaluated the consecutive outpatients with GB diseases attending a gastrointestinal clinic, who underwent demographic investigation, blood test for metabolic diseases, abdominal ultrasonography, glucose breath test (GBT). The 26 Controls without any abdominal symptoms were also enrolled. **Results:** 178 patients with GB diseases (131 GB stone, 47 cholecystectomy) were finally enrolled. The mean age of the patients were 55.4 years (range: 19-80) and 37.6% were male. The prevalence of fatty liver (46.1%), dyslipidemia (41.0%), hypertension (33.7%), metabolic syndrome (29.8%), SIBO (35.4%) and serum alanine aminotransferase (ALT) were significantly higher or higher tendency in patients with GB disease than in controls. Multivariate logistic regression analysis showed that dyslipidemia (OR = 3.12, 95% confidence interval (CI): 1.02-9.73), hypertension (OR = 4.62, 95% confidence interval (CI): 1.24-17.26), fatty liver (OR = 3.42, 95% confidence interval (CI): 1.07-10.90) and metabolic syndrome (OR = 10.39, 95% confidence interval (CI): 1.28-84.06) were independent factors associated with GB diseases. In subgroups with GB stones, dyslipidemia, hypertension, metabolic syndrome, and SIBO were independent factors. Whereas in subgroups with cholecystectomy, metabolic syndrome, fatty liver, and severity fatty liver were independent factors. **Conclusions:** The metabolic status with dyslipidemia, hypertension, metabolic syndrome is common risk factors related with both GB stone and cholecystectomy. Cholecystectomy is associated with the progression of fatty liver; whether GB stone is independently related with risk of intestinal bacteria

ERCP in EST-naïve Patients with Advanced Liver Cirrhosis

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Background: Although endoscopic retrograde cholangiopancreatography (ERCP) is not contraindicated in patients with decompensated liver cirrhosis, coagulopathy is a practically common obstacle. This study aims to assess the results of ERCP in endoscopic sphincterotomy (EST)-naïve patients with decompensated cirrhosis. **Methods:** In a single tertiary teaching hospital, total 146 EST-naïve patients with cirrhosis who had undergone ERCP were identified between 2005 and 2016. Decompensated and compensated liver cirrhosis were defined as Child-Turcotte-Pugh classification (CTP) C and CTP A or B. **Results:** There were 125 compensated, 21 decompensated liver cirrhosis patients. Male were 106 (72.6%) and median age was 64.6 years. Indications of ERCP were common bile duct stone (50.7%), malignant biliary obstruction (26.0%), and others (23.3%). Among baseline characteristics, mean prothrombin time (1.2 and 1.5 international normalized ratio, $p < 0.001$) and amount of transfusion of fresh frozen plasma (13.6% and 42.9%, $p = 0.001$) were significantly different between 2 groups. Compared with clinical success rate of patients with compensated cirrhosis (92.8%), that of patients with decompensated cirrhosis (71.4%) was significantly lower ($p = 0.003$). However, there were no significant differences in cannulation (97.6% and 90.5%, $p = 0.097$) and technical success rates (93.6% and 90.5%, $p = 0.600$) between compensated and decompensated cirrhosis. About 6 cases with clinical failures, there were 4 patients with compensated cirrhosis and 2 patients with decompensated cirrhosis. Causes of clinical failure were 5 patients with persistent jaundice and 1 patient with persistent cholangitis. There were no significant differences in complication rate (25.6% and 42.9%, $p = 0.103$) and median post-ERCP hospital days (8 days and 9 days, $p = 0.231$) between compensated and decompensated cirrhosis. **Conclusions:** Although there were no difference of cannulation success rate, technical success rate, and complication rate, there was a significant difference of clinical success rate between patients with decompensated and compensated liver cirrhosis. More attention is needed in patients with decompensated cirrhosis after ERCP.