
Percutaneous Transhepatic Gallbladder Drainage (PTGBD) Changes Emergency Laparoscopic Cholecystectomy into Elective Operation in Patients with Acute Cholecystitis

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Purpose: The aim of this study is to evaluate the effect of pre-operative percutaneous transhepatic gallbladder drainage (PTGBD) on surgical outcomes of laparoscopic cholecystectomy (LC) in patients with acute cholecystitis. We are much interested in the differences of surgical outcomes between elective and emergency operation. Generally, emergency operation is known as one of most predictive risk factors which increase post-operative morbidity and mortality. Giger et al. reported emergency operation could be one of the risks of possible peri-operative complications for over 20 thousand patients undergoing laparoscopic cholecystectomy.

Methods: Between March 2006 and February 2009, 333 cases of acute cholecystitis underwent LC at our institution and we studied retrospectively. We divided them into 3 groups. Group I was 207 patients who underwent elective LC without PTGBD, group II was 91 patients who underwent elective LC after PTGBD, and group III was 35 patients who underwent emergency LC without PTGBD.

Results: In groups I and III, there were no differences of operative time, post-operative complication, total length of hospital stay, and post-operative length of hospital stay. Conversion rate to open surgery of group I (5/207, 2.4%) was lower than that of group III (5/35, 14.3%) with significant difference ($p < 0.01$). In groups II and III, there were no differences of post-operative complication, and post-operative length of hospital stay. Operative time of group II (mean 125.2 min) was longer than that of group III (mean 103.1 min) with significant difference ($p < 0.05$). However, conversion rate to open surgery of group II (3/91, 3.3%) was lower than that of group III (5/35, 14.3%) with significant difference ($p < 0.05$).

Conclusion: We recommend PTGBD in patients with acute cholecystitis as much as possible, if indicated and available, so that we can operate on the patient as elective operation not emergency.