

# Percutaneous Cholecystoduodenal Stent For Acute Cholecystitis In Elderly Or Comorbid Patients: A Bicentric Retrospective Study

Tae Yun LEE<sup>1</sup>, Young Chul YOON\*<sup>1</sup>

<sup>1</sup>General Surgery, Incheon St.Mary's Hospital, REPUBLIC OF KOREA

**Background :** To investigate outcomes of cholecystoduodenal stents (CDS) for the patients of acute cholecystitis who are unfit for cholecystectomy.

**Methods :** Between April 2016 and November 2021, 45 patients (median [range] age=81 [37-99] years, male=15) with acute cholecystitis and unfit for surgery were attempted by percutaneous cholecystostomy and subsequent CDS placement using three different-type double J-catheters (polyethylene without drawstring, polyurethane, polycarbonate-based polyurethane [PCB-PU]) in two institutions. Clinical outcomes including technical and clinical success rate, early and delayed complications depend on catheter-types were retrospectively reviewed.

**Results :** CDS were successfully placed in 85% patients. Two patients experienced recurrent cholecystitis during median follow-up of 90 (range=3-1723) days. Temporary cholecystostomy catheter were successfully removed in 34 of 38 patients (89%). Immediate complications including acute pancreatitis (n=1) and peritonitis (n=1) occurred. Delayed complications including fractures and dislocations occurred in polyurethane catheter (n=3) and followed by polyethylene (n=9) and PCB-PU catheters (n=3) and rates were significantly different in groups (p=0.01). Post-hoc analysis (Bonferroni) in groups revealed complications were significantly fewer in PCB-PU than polyurethane (p=0.02).

**Conclusions :** CDS placement is safe and effective for prevention of recurrence of acute cholecystitis in elderly and comorbid patients. PCB-PU catheter is most suitable in terms of fewer complications and equipment of drawstring.

Corresponding Author : Young Chul YOON (k07yyc@catholic.ac.kr)