

## **Evaluation of Surgical Difficulty of Laparoscopic Cholecystectomy: Japan-Korea-Taiwan Collaborative Research**

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Laparoscopic cholecystectomy (Lap C) is one of the common procedures in the field of abdominal surgeries disseminated across the world. Today it has become a preferred treatment for acute cholecystitis. At the same time, it is recognized that inappropriate timing of surgery or insufficient preoperative care makes the surgery difficult and is likely to cause severe complications, such as bile duct injury or Vasculobiliary Injury (VBI)

While some papers say operations at early-onset of acute cholecystitis can reduce the risk of complications, others report that elective surgery after PTGBD (A) is preferred. In this way, the best treatment for acute cholecystitis remains controversial. To clarify these issues, objective measure is needed, however, there is no criteria to assess the preoperative PTGBD (A) is the effective option or when the optimal timing of operation (early or delayed) is. Prior to going into our study method, we elaborate on the key points from several papers verifying the preoperative evaluation. In these studies, it is difficult to illuminate the effectiveness of PTGBD or the appropriate timing of operation. In contrast, research proposal of this Japan-Korea-Taiwan collaborative study group is to elucidate what makes the surgery difficult or what kind of key factors during operation are relevant to the surgical difficulty – namely, to evaluate “the difficulty” based on solely intraoperative findings. In this prospective observational study, Central Review is to be applied to confirm the objectivity. In what way we statistically ensure the usefulness is now under consideration. Furthermore, as a primary study, a survey on the surgical difficulty of Lap C is planned to be carried out in order to know how surgeons both experienced and inexperienced feel the difficulty. Answers from the questionnaire would be a great asset in setting the endpoint in the following prospective study.

This time we present the latest version of Evaluation Sheet, or surgical difficulty grading system for Lap C. After many long discussions, we have reached the latest version, including findings, e.g. fibrosis and scar from the viewpoint of histology. This collaborative study group continues to make strenuous efforts to achieve the evidence-based outcome and the best practice for acute cholecystitis in accord with clinical practice.