

## Significance of Elective Laparoscopic Cholecystectomy for Acute Cholecystitis at Tokyo Medical University Ibaraki Medical Center

Ryutaro Udo<sup>1</sup>, Mitsugi Shimoda<sup>1</sup>, Ryosuke Imasato<sup>1</sup>, Yukio Oshiro<sup>1</sup>, Noritoshi Fukushima<sup>2</sup>, and Shuji Suzuki<sup>1</sup>

<sup>1</sup>Department of Gastroenterological Surgery, Tokyo Medical University Ibaraki Medical Center, Ibaraki, Japan

<sup>2</sup>Department of Preventive Medicine and Public Health, Tokyo Medical University, Japan

### Abstract

**Aim:** Tokyo guidelines 2018 (TG18) recommend early laparoscopic cholecystectomy (LC) for acute cholecystitis (AC). However, there is a serious shortage of surgeons and anesthesiologists at regional core hospitals, so they cannot adequately respond to the requirement of emergency operations. We retrospectively analyzed patients with AC who underwent LC at our department.

**Methods:** A total of 127 patients with AC who underwent LC between January 2006 and April 2019 were divided into an elective surgery group (interval LC group: Int G, 72 hours or more after visit) and an early surgery group (early LC group: EG, less than 72 hours after visit). We performed univariate and multivariate analyses using preoperative factors (blood test findings, imaging findings, previous surgery, preoperative drainage, and cholecystitis severity), surgical factors (bleeding volume, operation time, and laparotomy shift) and postoperative factors (hospitalization period and complications).

**Results:** Of the 127 patients, 51 were women and 76 were men with a median age of 64.8 years. A total of 55 patients were in Int G, and 72 were in EG. Multivariate analysis revealed that Int G patients had several post-endoscopic sphincterotomy (EST) complications including grade II or III cases, low albumin levels, increased blood loss, and extended hospital stays.

**Conclusion:** Our hospital tends to perform elective LC for patients with grades II and III with common bile duct stones, and it is necessary to reconsider the indications for such patients.

**Key words:** Acute cholecystitis, Interval surgery, Laparoscopic cholecystectomy, Regional core hospitals, Tokyo guidelines 2018