EP-127

The efficacy and safety of laparoscopic cholecystectomy using indocyanine green fluoroscopy

Mi Rin LEE, Hee Chul YU, Sung Woo AHN, Jae Do YANG*

Department of Surgery, Jeonbuk National University Hospital, Jeonju, Korea

Introduction: Laparoscopic cholecystectomy (LCC) is now accepted as the gold standard for the management of gallbladder diseases. Currently, one of the basic techniques of general surgical residency in Korea is cholecystectomy. However, it is not easy to overcome the learning curve during fellowship period because about 150 cases are required to overcome. Intraoperative imaging using indocyanine green (ICG) might reduce learning curve and the risk of bile duct injury by improving visualization of the biliary tree. We compared the outcomes of LCC in patients with and without ICG.

Methods: We performed a retrospective review of total 300 conventional LCC cases with and without ICG performed by three surgeons who started the fellowship of hepatobiliary surgery in a single center. The outcomes of LCC with and without ICG were compared using the operation time, the rate of conversion, complications and the length of stay.

Results: The median operation time was 43.0 vs. 39.0 min ($p = 0.45$) in the group with and without ICG, respectively. Without ICG, after the first 50 cases, operation time is gradually diminished and the mean operation time reached a plateau (average = 35 min). In cases of using ICG, after 30 cases experience, we reached plateau. The rate of conversion was 4.6% in the group without ICG, while 2.5% in the group with ICG. Bile duct injury occurred 1% vs. 2.2% in the group with and without ICG, respectively ($p < 0.05$).

Conclusions: LCC with ICG enables a better visualization and identification of biliary tree and should be considered as a means of increasing the safety and reducing learning curve of LCC.

Corresponding Author: Jae Do YANG (hirojawa@jbnu.ac.kr)

Presenter: Mi Rin LEE (sofkin3732@gmail.com)

Copyright © The Korean Association of Hepato-Biliary-Pancreatic Surgery

This is an Open Access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (<http://creativecommons.org/licenses/by-nc/4.0>) which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.