LAPAROSCOPIC CHOLECYSTECTOMY WORKSHOP

incorporating ICG in USM, June 2022 : our experience

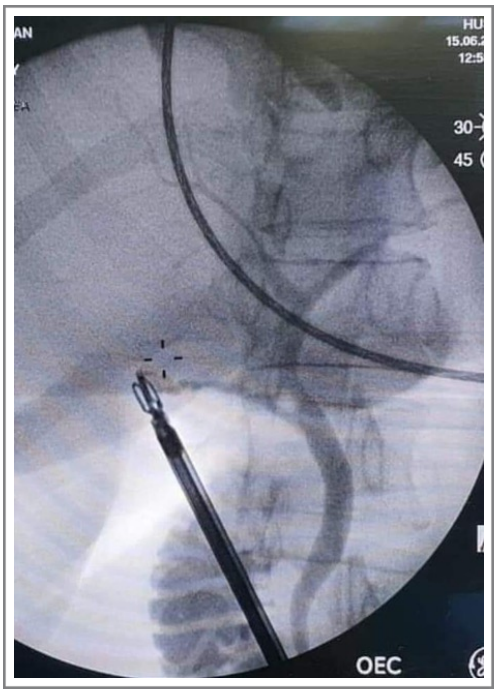
(Written by Dr Ikhwan Sani)

Laparoscopic Cholecystectomy

is a commonly performed operation for gallbladder disease. However, the most feared complication during laparoscopic cholecystectomy is bile duct injury. Real-time intraoperative imaging using intraoperative cholangiography (IOC) and fluorescent cholangiography with indocyanine green (ICG) can help better visualise the biliary system and thus reduce the risk of bile duct injury.

Surgical Department, School of Medical Sciences USM, in collaboration with Laparo-endoscopic Society (LES) and Malaysian Society of Hepato-Pancreato-Biliary Surgeons (MyHPBS), has conducted a two-day hands-on laparoscopic cholecystectomy workshop on 15th & 16th June 2022 at Universiti Sains Malaysia Hospital. It was a hybrid online live surgery telecast and face-to-face hands-on workshop. Our general surgeons, surgical postgraduate students, and allied health hospital staff attended the workshop.

The primary objective of the training was to train safe laparoscopic cholecystectomy surgical techniques for our general surgeons and surgical postgraduate trainees. The workshop started with lectures on hepatobiliary surgical anatomy and operative procedures, followed by a hands-on session. We were honoured to have Mr Leow Voon



Meng and Assoc Prof Dr Ikhwan Sani, senior Hepatobiliary consultants with vast experience, as the trainer for the hands-on session.

With direct supervision and guidance from the trainers, the participants could complete a total of 8 cases of laparoscopic cholecystectomy in the two-day program safely without any intraoperative complications. During this training, we utilised both the fluorescent cholangiography using indocyanine green (ICG) and intraoperative cholangiogram (IOC). During these two days of hands-on sessions, we noted that utilising real-time intraoperative imaging using ICG did help us in visualising the location of the biliary duct and performing safe dissection away from the area. However, the ICG was unable to replace the IOC for two reasons. The first reason was that IOC could delineate the complete biliary system more precisely, which begins from intrahepatic, hilar, and down to opening at the duodenum level. The second reason was IOC could check for the intraluminal biliary flow and patency, mainly obstruction due to stones in the bile duct, which could lead to detrimental post-operative complications if left undetected.During the workshop,we encountered silent common duct stone in normal size duct during intraoperative cholangiography in one of the patient.

In conclusion the mastering of the intraoperative cholangiogram (IOC) technique is still relevant and crucial in safe laparoscopic cholecystectomy, and indocyanine green (ICG) usage is useful modality as an adjunct.

We hope the participants can continue practising the correct and safe surgical technique for all the patients. This workshop will be conducted regularly as a part of training in future. Congratulations to the organising committee, our collaborating partners, and sponsors for making this hands-on surgery workshop a success.