

Title: 2023 Mini Laparoscopic Cholecystectomy Workshop: Intraoperative Cholangiogram and ICG as The Way Forward.

Date: **28th February 2023**

Time: **0800 - 1700**

Venue: **General OT 6, HUSM**

TIME	PROGRAMME	VENUE
0800 - 0820	Registration	Surgical Department Seminar room
0800 - 0810	Prayer Recital	
0810 - 0820	Opening remarks by Dr Maya Mazuwin Yahya, HOD Dept of Surgery	
0820 - 0835	Anatomy of Biliary system related to Laparoscopic Cholecystectomy - Mr Mohd Azem Fathi Mohammad Azmi	
0835 - 0850	Safe Cholecystectomy – Prof Ikhwan Sani Mohamad	
0850 - 0900	Photo Session and Tea break	
0900 - 1300	Laparoscopic Cholecystectomy with OTC and ICG (Case 1 & Case 2)	General OT 6
1300 - 1400	Lunch break & Zuhur Prayer	
1400 - 1700	Laparoscopic Cholecystectomy with OTC and ICG (Case 3 & Case 4)	
1700 - 1730	Closing remarks	

28th February 2023 marked another milestone of Hepatopancreaticobiliary units of Hospital Universiti Sains Malaysia. We successfully organized a Mini Laparoscopic Cholecystectomy workshop in combination of intra-operative cholangiogram (IOC) and Indocyanine Green (ICG). This workshop is mainly to demonstrate the use of Rubina® imaging technology from KARL STORZ combines 3D and 4K technology with ICG fluorescence imaging in combination of IOC to provide a safe laparoscopic cholecystectomy. This workshop mainly targets participants from in house MMED Surgery USM. We were honored to have our very own HPB consultant, Prof Ikhwan Sani Mohamad and in house general surgeon, Mr. Mohd Azem Fathi in guiding us throughout the workshop.

Bile duct injury is the most feared complication following laparoscopic cholecystectomy. This complication has been shown to occur even in the hands of surgeons with profound expertise in laparoscopic cholecystectomy. In fact the lifetime risk of bile duct injury has been estimated at 0.4%. As such there is always some substantial risk of bile duct injury whenever laparoscopic cholecystectomy is performed. Consequently, the need to maximize surgical safety and reduce the risk of complications cannot be overemphasized.

ICG is being increasingly used during laparoscopic cholecystectomy. Alongside an optimal image, it is helpful to receive additional information on biliary tree anatomy that increases the precision of the surgical technique. During our workshop, we demonstrated different intensity of illumination on biliary tree anatomy via the ICG at different periods of injection prior to surgery. CBD can be lightened up as early as 1 hour up to 6 hours. Whereas IOC had helped us in identifying the patency of CBD and any obstruction within CBD which might lead to detrimental complication if left untreated after a cholecystectomy.

We had completed a total of 5 cases during the workshop and we concluded that IOC is feasible and can be done as routine to master the skill. Whereas ICG is another adjunct to safe gallbladder surgery. Thanks again to Medtronic and Ummy Surgical in supporting our event. We hope with this workshop we can nurture our future surgeon and to provide a safe laparoscopic cholecystectomy to our patients. Thanks also to MyHPBS in endorsing our workshop as one of their annual events.





