

## Laparoscopic Complex Liver Resection Using Real Time Indocyanine Green Fluorescence Image Guided Hepatectomy For Secure Resection Margin

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**Background :** Due to the development of surgical techniques and the evolution of technology, laparoscopic hepatectomy is increasingly used to treat patients with hepatic tumors. Indocyanine green (ICG) fluorescence imaging has been used to identify hepatic tumors during hepatectomy. This video presents the clinical application of real-time ICG- fluorescence imaging in laparoscopic complex hepatectomy for secure the surgical margins.

**Methods :** Case 1) Subsegmentectomy 5 Hepatocellular carcinoma (2cm) with portal hypertension (splenorenal shunt): Proximity to the right anterior portal vein and middle hepatic vein. Case 2) Extended right hepatectomy Infiltrative hepatocellular carcinoma (5cm): Proximity to the middle and right hepatic vein with tumor thrombus at the right anterior portal vein.

**Results :** The resection margins were negative in two patients.

**Conclusions :** Real-time ICG- fluorescence imaging in laparoscopic hepatectomy could be helpful to identify tumor location and secure surgical margin.

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