

ROBOT ASSISTED RIGHT HEMICOLECTOMY WITH COMPLETE MESOCOLIC EXCISION

A TECHNICAL GUIDE

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CASE

In this video, we describe our method for performing a robotic right hemicolectomy with central mesocolic excision (CME) is described. We present the case of a 42-year-old female with a hepatic flexure pMMR adenocarcinoma with no significant medical or family history.

The pathology revealed a poorly differentiated adenocarcinoma 65mm in maximum dimension with clear margins (Figure1). There was no evidence of malignancy in 62 harvested lymph nodes. The patient was discharged day 2 post-op and there were no short or long-term complications.

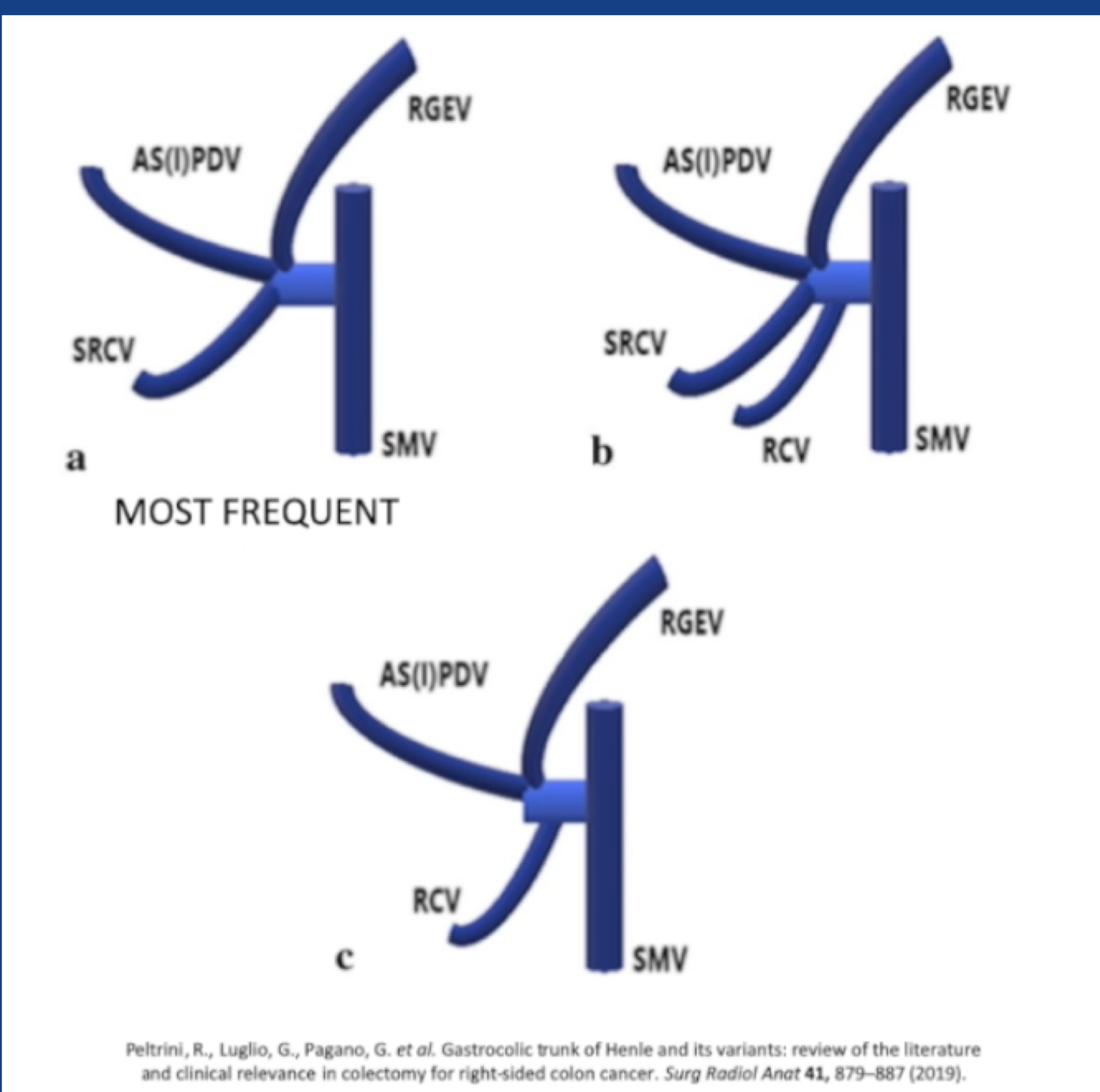
Using a robot to perform the CME dissection allows a safer, more controlled and precise dissection. The intra-corporeal anastomosis offers quicker return of bowel function and lower incisional hernia rate.

Fig 1. CT imaging confirmed a large mass lesion at the hepatic flexure causing partial obstruction.



SURGICAL TECHNIQUE

Fig 3 – Variations of Henle's Trunk that may be encountered during CME dissection



A superior mesenteric vein first technique was used for the CME dissection (Figure4). The many variations of Henle's trunk must be considered to prevent unwanted bleeding. The most frequent configuration is depicted in Figure2a, where the superior right colic vein joins the right gastroepiploic vein and the anterior superior pancreaticoduodenal vein to form the trunk of Henle. As depicted in figure b and c, the right colic vein can be added to or replace the superior right colic vein in other cases.

It is important that during the dissection, the duodenum and pancreas are cleared of all overlying lymphatic tissue as depicted in Figure 5. In regards to the boundaries of the central mesocolic excision, the medial border is over the top SMV. The superior most border is where the gastroepiploic vein meets the trunk of Henle.

Once complete, the ileum and transverse colon are divided to remove the tumour. Firefly imaging post ICG injection is used to confirm the vascularity of the conduits as depicted in Figure 3. An intracorporeal isoperistaltic side-to-side anastomosis is then created.

Fig 2 – ICG used to determine vascularity of conduit

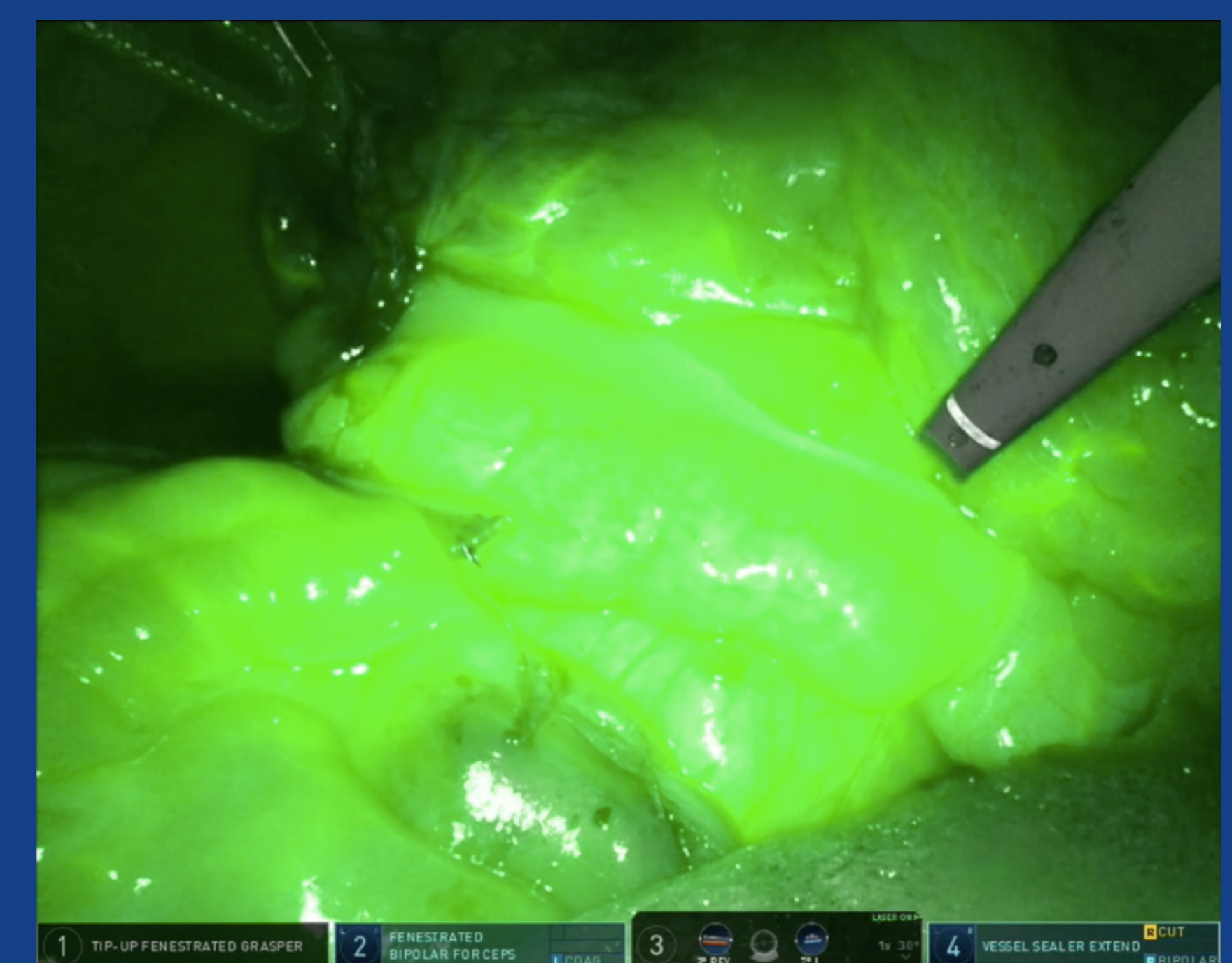


Fig 4 – CME dissection



Fig 5 – Duodenum and pancreas cleared of overlying tissue

