

# Laparoscopic Control Of Postoperative Bleeding From The Inferior Vena Cava Due To The Focal Failure Of Vascular Stapling Induced By A Small Metal Clip After Laparoscopic Living Donor Right Hepatectomy

Ji Su KIM<sup>1</sup>, Gi Hong CHOI\*<sup>1</sup>

<sup>1</sup>Department Of Hepatobiliary And Pancreatic Surgery, Yonsei University College Of Medicine, REPUBLIC OF KOREA

**Background :** The laparoscopic living donor hepatectomy (LLDH) has been increasingly performed. Due to the nature of donor hepatectomy, surgeon need to be more careful to avoid complications after surgery. In particular, LLDH requires more caution because it is technically difficult. Here is a case of postoperative bleeding complications caused by the focal failure of vascular stapling.

**Methods :** An 18-year-old female with no specific past history underwent laparoscopic living donor right hepatectomy with a healthy liver donor.

**Results :** The operation time was 396 minutes, and the amount of intraoperative blood loss was 50cc. The operation was performed as a routine procedure, and a vascular stapler was applied for the ligation of Inferior vena cava ligament. 6 hours after surgery, the color of postoperative drain changed to sanguinous, systolic blood pressure decreased (137 → 90mmHg), hemoglobin decreased (10.5 → 6.7g/dL), and reoperation was performed due to hemorrhagic shock. Laparoscopic hematoma evacuation was performed, and there was no active bleeding in the operation bed. However, the stapler was locally incompletely applied to the IVC ligament, and a minimal bloody oozing was observed in this area. After applying the metal clip to the incomplete stapler line and confirming that there is no more bleeding, the second operation was finished. The total operation time of the second operation was 98 minutes and the amount of intraoperative blood loss was 400 cc. In this case, a small metal clip was applied around the IVC ligament in first operation. When applying the vascular stapler to the IVC ligament, the metal clips meshed together and the stapler was applied incompletely.

**Conclusions :** When using the stapler, be sure to check that there are no foreign materials such as metal clips around the area where the stapler will be applied. Beginners with less experience can perform LLDH more safely by considering these aspects.

Corresponding Author : Gi Hong CHOI (CHOIGH@yuhs.ac)