

VIDEO

Laparoscopic removal of retroperitoneal tumor with maneuver of hanging inferior vena cava

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Abstract

Background Laparoscopic resection of retroperitoneal mass is challenging because of its location close to major vessels and a limited range of laparoscopic instruments [1–3]. We report a case of a huge retroperitoneal paraganglioma that was successfully excised laparoscopically using maneuver of hanging IVC

Method A 67-year-old female had abdominal mass detected during routine check-up. She had no symptoms associated mass. Hematologic, biochemical investigations, and hormone tests reveal normal results. Preoperative CT shows retroperitoneal tumor, measuring 6.1 cm in diameter, which was closely adhered to right adrenal gland and seemed to originate from adrenal gland. Three 12-mm trocars and two 5-mm trocars were used. Laparoscopic views showed that severe adhesion in peritoneal cavity due to previous subtotal gastrectomy for gastric polyp about 30 years ago. After adhesiolysis, the mass was visualized behind inferior vena cava. The mass was carefully dissected and separated from duodenum and inferior vena cava as well as right adrenal gland. Inferior vena cava was retracted with hanging maneuver of IVC with vascular tape. The fibrotic tissues covering the mass were dissected with ligasure™. The feeding vessels supplying mass were identified and clipped, then subsequently sealed and divided. After complete resection

of mass, the specimen was inserted into plastic retrieval bag and extracted via extended umbilical port. And then Jackson Pratt drain was placed around inferior vena cava.

Result There was no intraoperative transfusion and complications during laparoscopic retroperitoneal excision for paraganglioma. The operation time was 190 min, and estimated blood loss was 100 ml. The patient was discharged on postoperative 5th day without complications. Final pathologic result was paraganglioma of 7.5 cm sized with PASS score 4 (pheochromocytoma of the adrenal gland scaled score).

Conclusion Laparoscopic surgery for huge retroperitoneal paraganglioma behind IVC was successfully performed with the maneuver of hanging IVC. This procedure could be useful with appropriate laparoscopic technique and proper patient selection.

Keywords Laparoscopic · Retroperitoneal · Inferior vena cava

Compliance with ethical standards

Disclosures Authors Sungho Kim, Ho-Seong Han, YoungRok Choi, Yoo-Seok Yoon, Jai Young Cho, have no conflict of interest or financial ties to disclose.

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