


Laparoscopic aortic lymphadenectomy in left-sided inferior vena cava

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Transposition of the inferior vena cava (IVC), also known as left-sided IVC (LS-IVC), is a rare congenital variant which results from regression of the right supracardinal vein and persistence of the left supracardinal vein in embryonic development.^{1 2} LS-IVC occurs in 0.2–0.5% of the general population.³ The diagnosis of LS-IVC is a crucial step in performing surgical procedures around the vena cava due to a substantial risk of vascular injury in cases with the relevant anatomical variation. Imaging evaluation is essential to identify vascular anomalies and detect the border of dissection.

A 29-year-old patient was diagnosed with squamous cervical carcinoma (International Federation of Gynecology and Obstetrics (FIGO) stage IB3). Imaging showed no suspicious pelvic and para-aortic lymphadenopathies but clear evidence of transposition of the IVC. A staging laparoscopic trans-peritoneal aortic lymphadenectomy was performed.

No intra-operative complications were observed. Estimated blood loss was 50 mL, operative time was 90 min, and the hospital stay was 3 days. Histology confirmed negative aortic lymph nodes (N 0/14).

Laparoscopic aortic lymphadenectomy is a complex and challenging surgical procedure that requires wide knowledge of retroperitoneal anatomy, advanced surgical skills, and experience.³ Although the technique has been widely standardized, anatomical anomalies could be fatal. Pre-operative imaging is crucial to identify possible vascular anomalies, and surgeons should always directly visualize imaging in order to reduce the risk of undiagnosed anatomical abnormalities.⁴

Surgical dissection of para-aortic anatomical spaces in cases with transposition of the IVC can

be performed safely, but great caution is required to reduce the risk of fatal adverse events (Video 1).

Contributors MC: conception and design of the video article; manuscript preparation; data collection; video producer and interpretation, responsible surgeon. CC: conception and design of the video article; manuscript preparation; data collection; video voice and interpretation; patient recruitment. GSo: conception and design of the study; responsible surgeon. CG: manuscript preparation; video analysis and interpretation. GSc: conception and design of the study; video analysis and supervisor of all activities. VC: conception and design of the video article; data analysis and interpretation; patient recruitment and responsible surgeon; supervisor of all activities.

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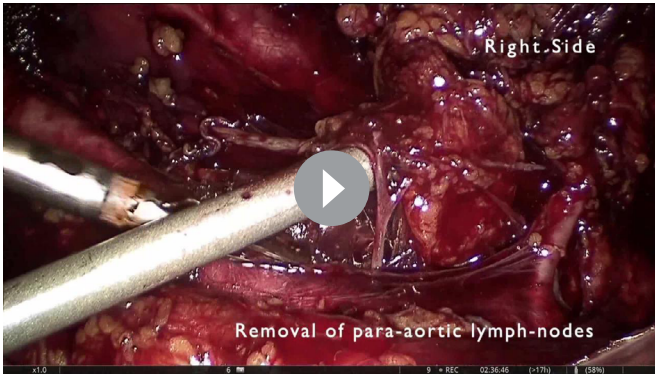
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Video article



Video 1. Left-sided inferior vena cava after laparoscopic aortic lymphadenectomy.