VIDEO

First case of complete full robotic surgical resection of leiomyosarcoma of the right renal vein

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Abstract

Background Leiomyosarcomas present high postoperative morbidity and poor prognosis [1]. In the literature, only few cases of localized small leiomyosarcoma have been described [2, 3]. These cases might benefit from a minimally invasive approach. Robotic surgery has been claimed to have several advantages over laparoscopy such as enhanced vision and instruments movements which might make more feasible the execution of this type of surgery where partial renal resection is required.

Methods A 53-year-old female with a medical history of myeloid leukemia and with chronic renal failure (creatinine: 2.6) was referred to our hospital for an incidental finding of right perirenal tumor of almost 3 cm compatible with leiomyosarcoma arising from the right renal vein.

Results The operation was performed using a Da Vinci Robotic Surgical System model Si (Intuitive Surgical, Sunnyvale, CA, USA). Robotic ports were placed in a standard configuration for minimally invasive right nephrectomy. The dissection started with the partial mobilization of the right liver and Kocher maneuver. After the identification of the inferior vena cava the tumor was finally localized and dissected. Resection ended with a partial right vein resection and suture. Pathological final

exam confirmed the diagnosis with margins free from tumor.

Conclusions In selected cases, robotic resection of leiomyosarcoma might be a safe and feasible procedure in experienced hands.

Keywords Robotic surgery · Leiomyosarcoma · Minimally invasive surgery

Compliance with ethical standards

Disclosures E. Vicente, Y. Quijano, H. Duran, E. Diaz, I. Fabra, L. Malavé, V. Ferri, S. Lazzaro, D. Kalivaci, and R. Caruso, and Benedetto Ielpo have no conflicts of interest or financial ties to disclose.

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