

However, laparoscopic procedures have problems including the absence of 3 dimensional perception, reduced dexterity and poor ergonomics for the surgeon. A robotic approach can help overcome these challenges and offer precision that is beneficial for difficult adrenal tumors. We present our surgical techniques for a robotic approach in challenging adrenal tumors, including total and partial adrenalectomy.

Material and methods: The first case was a 55 year-old male with an incidental 6.9 cm right adrenal mass and markedly elevated plasma metanephrine, consistent with pheochromocytoma. He elected for a robotic adrenalectomy. The second patient was a 42 year-old male diagnosed with 2.6 cm tumor in the left adrenal gland during an evaluation of poorly controlled hypertension. An adrenal protocol CT scan showed a well-circumscribed adrenal mass located in the lateral limb of the adrenal gland that was inconclusive for adenoma. Despite normal cortisol and catecholamine levels, the patient had occasional headaches, flushing, and palpitations which he attributed to his adrenal tumor. The patients elected to undergo a robotic partial adrenalectomy using a robotic ultrasound probe for tumor localization. In both patients, preoperative blockade was instituted.

Results: Our console time for the first patient was 3.5 hours with 100 ml estimated blood loss (EBL); the second patient was 1.5 hours with 100 ml EBL. There were no intra or post-operative complications. Both patients had an uneventful intraoperative and postoperative course and were discharged the following day. Final pathology was pheochromocytoma and adrenocortical adenoma for case one and two, respectively.

Conclusions: We demonstrate the use of robotic assistance to remove challenging adrenal tumors by total and partial adrenalectomy. We also demonstrate the use of a robotic ultrasound probe for use in robotic partial adrenalectomy.

ROBOTIC ANATROPHIC INCISION FOR NEPHRON SPARING SURGERY FOR COMPLETE INTRARENAL TUMOR IN THE RENAL SINUS

Sotelo RJ, Urology, Instituto Médico La Floresta, Caracas, Venezuela
 Cisneros R, Urology, Instituto Médico La Floresta, Caracas, Venezuela
 De Andrade R, Urología, Instituto Médico La Floresta, Caracas, Venezuela
 Carmona O, Urology, Instituto Médico La Floresta, Caracas, Venezuela
 Fernández G, Urology, Instituto Médico La Floresta, Caracas, Venezuela
 Zamora M, Urology, Instituto Médico La Floresta, Caracas, Venezuela
 Castro J, Urology, Instituto Médico La Floresta, Caracas, Venezuela
 Garza R, Urology, Instituto Médico La Floresta, Caracas, Venezuela

PRESENTING AUTHOR

Sotelo RJ, Urology, Instituto Médico La Floresta, Caracas, Venezuela

Objective: To present a robotic nephron-sparing approach for intrarenal sinus tumors, through the avascular Brodel's line, replicating the open conventional approach.

Methods: In a female patient, we performed a robotic anatomic nephron-sparing surgery for complete intrarenal tumor in the renal sinus through the avascular line.

Results: The full procedure was performed with the robot-assisted approach. The operative time was 270 minutes, warm ischemia time was 25 minutes, estimated blood loss was 200 ml and hospital stay was 4 days. The pathology reported a renal clear cell carcinoma, Furhman grade 2 with negative resection margins of 0.7 mm. There were no intraoperative or postoperative complications during 6 months of follow-up.