

# Robotic-assisted laparoscopic adrenalectomy for an adrenal adenoma

Ahmed Deniwar<sup>1</sup>, Hossam Eldin Mohamed<sup>1</sup>, Salem I. Noureldine<sup>2</sup>, Emad Kandil<sup>1</sup>

<sup>1</sup>Division of Endocrine and Oncological Surgery, Department of Surgery, Tulane University School of Medicine, New Orleans, USA; <sup>2</sup>Division of Head and Neck Endocrine Surgery, Department of Otolaryngology—Head and Neck Surgery, Johns Hopkins University School of Medicine, Baltimore, USA

*Correspondence to:* Emad Kandil, MD, FACS, FACE. Edward G. Schlieder Chair in Surgical Oncology; Associate Professor of Surgery, Otolaryngology and Medicine; Chief, Endocrine Surgery Section. Department of Surgery, Tulane University School of Medicine, New Orleans, LA, USA.  
Email: ekandil@tulane.edu.

**Abstract:** The patient was referred for management of a left adrenal incidentaloma. Preoperative CT scan and MRI showed focal calcification. Here we are presenting this video demonstrating robotic-assisted laparoscopic adrenalectomy for left adrenal mass.

**Keywords:** Robotic-assisted adrenalectomy; laparoscopic adrenalectomy

Submitted Apr 29, 2015. Accepted for publication Apr 29, 2015.

doi: 10.3978/j.issn.2227-684X.2015.05.05

**View this article at:** <http://dx.doi.org/10.3978/j.issn.2227-684X.2015.05.05>

The patient is a 45-year-old female who was referred for surgical management of suspicious appearing adrenal incidentaloma. Abdominal CT scan and MRI revealed an enhanced adrenal mass of 3.9 cm at largest diameter and with micro-calcifications. Subsequently, we performed robotic-assisted laparoscopic resection of the adrenal mass using two 8-mm ports, a camera port and assistant port to roll out adreno-cortical cancer (*Figure 1*). The da Vinci Surgical System with a three arm configuration was used. The patient was positioned in a 60° flank position. We encountered dense intra-abdominal adhesions that were expected due to multiple past abdominal surgeries of appendectomy and ovarian cyst resection. Due to close proximity of the mass to the pancreas, isolation and dissection of multiple small arterial and venous branches emanating from posterior retroperitoneum and the pancreas was done. This mobilized the entire length of the adrenal. Intraoperative ultrasound was used to identify the adrenal mass and its relationship to vital structures, and vasculature of the adrenal gland. The assistant surgeon maintained a clear field with laparoscopic suction. Circumferential dissection and resection were performed safely using



**Figure 1** Robotic-assisted laparoscopic adrenalectomy (1).

Available online: <http://www.asvide.com/articles/613>

Harmonic scalpel despite close proximity to vital structures as the pancreas and the spleen. The operation was terminated after the mass is extracted in an Endo Catch bag. The blood loss was minimal. The patient postoperative course was uneventful. Final pathological examination showed adrenocortical neoplasm with atypia.

## Conclusions

Robotic-assisted laparoscopic adrenalectomy is effective for patients with large adrenal masses with previous abdominal surgical history and intraoperative adhesions.

## Acknowledgements

None.

**Cite this article as:** Deniwar A, Mohamed HE, Noureldine SI, Kandil E. Robotic-assisted laparoscopic adrenalectomy. *Gland Surg* 2015;4(5):447-448. doi: 10.3978/j.issn.2227-684X.2015.05.05

## Footnote

*Conflicts of Interest:* The authors have no conflicts of interest to declare.

## References

1. Deniwar A, Mohamed HE, Noureldine SI, et al. Robotic-assisted laparoscopic adrenalectomy. *Asvide* 2015;2:069. Available online: <http://www.asvide.com/articles/613>