

AB027. SOH22ABS148. Robotic adrenalectomy for a complex case of clinically malignant pheochromocytoma with large retroperitoneal haemorrhage: operative technique with a dual-console Xi da Vinci surgical system

Leah Hayes, Robert Keenan, Subhasis Giri

Department of Urology & Robotic Surgery, University Hospital Limerick, Limerick, Ireland

Background: Pheochromocytomas are rare, catecholamine secreting tumours which pose significant challenges during the peri-operative period, particularly intraoperative management. Adrenalectomy is the gold standard treatment. Open adrenalectomy has significant morbidity. This can be minimised with the use of minimally invasive surgery. We aim to describe our technique of robotic adrenalectomy (RA) in a complex case of clinically malignant pheochromocytoma complicated by large retroperitoneal haemorrhage.

Methods: A 74-year-old gentleman with a background of obesity, dyslipidaemia and hypertension presented to the emergency department with acute severe right flank pain and hypotension. Imaging identified a large retroperitoneal haemorrhage related to an 8 cm enhancing mass arising from the right adrenal gland. Biochemical studies showed metabolically active noradrenaline dominant pheochromocytoma. Discussion at multi-disciplinary meeting raised the possibility of malignant pheochromocytoma. He was optimised with multidisciplinary team (MDT). He then underwent right RA. We describe operative details and technique in our video.

Results: Following general anaesthesia the patient was positioned into left lateral-decubitus position without table flexion. Intra-operatively we encountered extensive adhesions of the adrenal tumour with surrounding tissues

including inferior vena cava, liver, diaphragm and posterior abdominal wall; likely secondary to extensive retroperitoneal haemorrhage. *En-block* adrenalectomy was performed with the use of da Vinci dual console robotic platform. There were no intra-operative or post-operative complications. Console time was 180 minutes. Blood loss was 150 mL. Patient was dischargeable day 2 post-op but went home day 3 post-operatively.

Conclusions: With the help of MDT, RA can be safely performed with an excellent outcome, even in the complex situation of potentially malignant pheochromocytoma.

Keywords: Adrenalectomy; multidisciplinary team (MDT); minimally invasive surgery; pheochromocytoma; robotic

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Footnote

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

Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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