



Surgical anatomy of the adrenal gland

Due to the low incidence of adrenal disease most clinicians will rarely encounter a patient whose clinical signs are reminiscent of the description of Doctor Harvey Cushing or whose biochemical abnormalities are indicative of the syndrome described by Doctor Jerome Conn. Though most trainees preparing for postgraduate examinations will cover the management of a patient with pheochromocytoma, the reality is that a practicing GP or hospital doctor might only meet one such patient during their entire career. It is therefore not surprising that several papers from United States classified as ‘high-volume surgeons’ those doing only 4 or more adrenalectomies per year as the vast majority of surgeons do only one such case per year (1). A similar situation was reported from the UK (2). We owe to our patients to correct this untenable situation and ensure that younger surgeons with an interest in endocrine surgery are being offered the knowledge and the practical training required in order to make right decisions for the surgical treatment of patients with adrenal disease.

In this context, I am very grateful to all contributors who have been involved in this issue dedicated to adrenal surgery. This material should complement recent publications from the 2019 meeting of the European Society of Endocrine Surgeons (ESES) discussing the need to centralize adrenal surgery in units with sufficient workload.

The papers presented cover the technical aspects of laparoscopic (3), retroperitoneoscopic (4) and open adrenalectomy (5), the benefits of collaborating with surgeons from allied specialties such as cardiac surgeons involved in the management of tumours invading the vena cava (6) and an overview of current training in adrenal surgery (7). In addition, new possible developments are also presented: the use of new adjuncts such as fluorescence (8) and the ‘non-anatomical approaches to the adrenal gland (9).

The expectation is that in coming years laparoscopic adrenalectomy will be offered by many centres doing at least 6 cases per year while retroperitoneoscopic surgery will be adopted in centres with significantly higher workload so that enough patients suitable for this technique are operated every year. Most likely open adrenalectomy for malignant tumours will be centralized in centres with specific interest in this condition but all surgeons undertaking minimally invasive adrenalectomy might be obliged to convert to open adrenalectomy in case of intraoperative complications that can not be managed through a laparoscopic approach.

If these papers will stimulate the interest of young surgeons to become involved in adrenal surgery, they should engage in future educational events organized by ESES. The society has established the *Jean-Francois Henry Travelling Fellowship* (<http://www.eses.cc/jfh-travelling-scholarship.html>) with the aim of supporting trainees who want to visit a centre of excellence to learn a new technique and see in practice many of the technical issues discussed in these papers.

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Footnote

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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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