

Partial Adrenalectomy – Arguments for the Minimally Invasive Surgical Approach

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Abstract

Background: Partial adrenalectomy has been widely performed in the last decades in order to diminish the number of patients who would become lifetime dependent of hormonal replacement.

Method: between 2016 and 2018 seven patients were submitted to minimally invasive partial adrenalectomy in Ponderas Academic Hospital.

Results: the median age at the time of surgery was 56 years (range 42-67 years) while the indications for partial adrenalectomy (PA) were represented by Conn's syndrome in four cases, bilateral pheochromocytoma in one cases and nonfunctional adrenal tumors in two cases. Preoperatively successful adrenal vein sampling was performed in one case. The indocyanine green test (ICG) as well as intraoperative ultrasound were used each in three cases. The transperitoneal approach was used for PA in all patients, laparoscopic in five and robotic assisted in two patients. No conversion to open surgery or to total suprarenalectomy was encountered.

Conclusions: minimally invasive surgery seems to be a safe and effective method to perform partial adrenalectomy. Moreover, development of novel technologies such as adrenal vein sampling, indocyanine green test or intraoperative ultrasound seem to increase the feasibility of the method as well as the number of cases who could benefit from the type of approach. Use of new technology?

Key words: partial adrenalectomy, minimally invasive approach, indocyanine green