

INDICATIONS FOR SURGERY IN THE ERA OF LAPAROSCOPIC ADRENALECTOMY

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Background: With better imaging modalities, benign non-functioning adrenal lesions are seen increasingly. Indications for adrenalectomy include functioning lesions and potentially malignant tumors. With increasing use of laparoscopic adrenalectomies (LA), there is concern that indications for adrenalectomy have expanded.

Objectives: Review the spectrum of adrenal pathology in patients referred to an Endocrine Surgeon and evaluate if the introduction of LA has changed indications for surgery.

Methods: Retrospective analysis of consecutive patients with adrenal lesions referred from 1992 to 2004. Patients were divided into two groups, patients seen before the introduction of LA, and those after the introduction of LA in 1995. Statistical comparisons were made using a two-tailed t test.

Results: 175 patients with 187 adrenal lesions were assessed. Overall, functioning lesions were found in 116 (64%) patients. Primary Hyperaldosteronism (PA) was found in 43 (25%) patients, Pheochromocytoma (Pheo) in 37 (21%), Cushing's Syndrome (CS) in 34 (19%), and Adrenal Cortical Carcinoma (ACC) in 11 (6%). 30 patients were seen before the introduction of LA. 37% of these lesions were non-functioning, 13% had PA, 23% had Pheo, 20% had CS, and 7% had ACC. Within this group, 16% had benign incidentalomas not requiring adrenalectomy. After introducing LA, 145 patients were assessed. Similar to the group before LA, 33% were non-functioning and within this group 16% of the patients were considered non-surgical. No difference was seen in the percentage of patients with Pheo (21%), CS (19%) or ACC (6%) seen either before or after LA was introduced. There was however, a statistically significant increase in the percentage of patients seen with PA (27%) after introducing LA ($p < 0.005$).

Conclusion: The majority of lesions referred to an Endocrine Surgeon are functional. The indications for adrenalectomy have not changed since LA; however, it does appear to have increased the percentage of patients with PA.