

## Laparoscopic Adrenalectomy for Pheochromocytoma

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### ABSTRACT

**Background and Objectives:** With advances in video endoscopic technology and wide spread use of laparoscopy in abdominal surgery, success rate removal of adrenal gland has increased. In this study which is the first our experience in laparoscopic adrenalectomy for pheochromocutoma, we attempted to report treatment outcomes of laparoscopic adrenalectomy.

**Materials and Methods:** This study is a case – series assessment. Among the patients who underwent surgical removal of adrenal Mass, eleven diagnosed for pheochromocytoma treated laparoscopically. 6 males and 5 females with mean age  $36 \pm 13$  (14-55) were in this study. In 5 cases mass located in right adrenal and 6 in left adrenal. Mean size of mass was  $3.8 \pm 0.72$  (2.8-4.8) cm. All patients received preoperative  $\alpha$  blocker before operation. The laparoscopic adrenalectomy was performed by transabdominal approach.

**Results:** In our study eleven successful laparoscopic adrenalectomy was performed and we had no conversion to open surgery. Intraoperative cardiovascular instability was found in 5 patients who had sever symptoms before operation. The mean of instability of cardiovascular was  $1.09 \pm 1.5$  (0-3) (systolic blood pressure more than 200 mmHg and heart rate more than 120 per minute). Most of theses changes controlled after ligation of adrenal veins. Intraoperative bleeding during laparoscopy was not significant. Mean operative time was  $161 \pm 22.7$  (120-195) minutes. There was no correlation between operative time and tumor size. Post operative complication was seen in only one patient, this was one case of pneumothorax after operation. hypertension recovered after operation in all patients.

**Conclusion:** Laparoscopic adrenalectomy is a safe and effective procedure. It could be an alternative approach for open surgery in selected patients.

**Key words:** Pheochromocytoma, Adrenal mass, Laparoscopic adrenalectomy

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