Retroperitoneoscopic adrenalectomy for phaeochromocytoma in a morbidly obese patient: A case report

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Abstract. A 38-year-old morbidly obese lady (BMI-46 kg/m^2) was diagnosed with a right adrenal phaeochromocytoma. She successfully underwent retroperitoneoscopic adrenalectomy using a 3-port technique incurring a blood loss of 110 ml. Postoperatively her recovery was rapid and uneventful with stabilisation of blood pressure and relief of symptoms, thereby emphasising the safety and efficacy of retroperitoneoscopic adrenalectomy in morbidly obese patients.

Key words: Adrenalectomy, Laparoscopy, Obesity, Phaeochromocytoma, Retroperitoneoscopy

Introduction

Laparoscopic adrenalectomy has become a standard procedure for treatment of adrenal masses providing minimal invasiveness and early recovery. Increasing experience and refinement of technique has made it possible to offer laparoscopy to morbidly obese patients in whom technical difficulties and a significant risk of complications make open surgery a formidable undertaking. We describe a case of a 38-year-old lady with a BMI of 46 kg/m^2, who successfully underwent laparoscopic adrenalectomy for a phaeochromocytoma.

Case report

A 38-year-old morbidly obese lady with a BMI of 46 kg/m^2 presented with complaints of headache and palpitations. She had been diagnosed hypertensive for two years and inspite of being on multiple drugs her blood pressure was not controlled and on occasions was recorded to be > 200/120 mm Hg. Routine laboratory tests including renal function tests and electrolyte were normal while 24-hour urinary catecholamines and packed cell volume were raised. CECT and MRI of the abdomen revealed a small mass (2×2 cm) in the right suprarenal area (Figures 1a and b). In view of hypertension and raised urinary catecholamines, a working diagnosis of phaeochromocytoma was made and the patient was prepared for laparoscopic right adrenalectomy under general anaesthesia. A 3-port (two 10 mm and one 5 mm) lateral retroperitoneal approach was used. A well-encapsulated circumscribed mass was visualized in the right adrenal gland (Figure 2). The right adrenal gland was carefully dissected and removed after clipping the right adrenal vein near the inferior vena cava. The operative time was 3.5 hours with a blood loss of 110 ml. The patient made an uneventful recovery and was discharged on the 3rd postoperative day. Histopathology report confirmed a phaeochromocytoma. After a follow up of 6 months, the patient has a well-controlled blood pressure on a low dose of a single antihypertensive agent, enalapril.

Discussion

Laparoscopic adrenalectomy has been shown to be as safe and effective as conventional open surgery for benign and small adrenal lesions. Increasing experience and refinement of technique has made it possible to offer laparoscopy to morbidly obese patients in whom technical difficulties and a significant risk of complications make open surgery
a formidable undertaking. Fazeli-Matin et al. evaluated 42 obese patients with a BMI > 30 kg/m² and concluded that laparoscopic renal and adrenal surgery is technically feasible in the markedly and morbidly obese patient, and compared with open surgery results in significantly decreased blood loss, quicker return of bowel function, less analgesic requirement, shorter convalescence and reduced hospital stay [1]. Balogh et al. have described the use of the posterior retroperitoneoscopic approach for the management of small (<5 cm) adrenal masses and have recommended its use in morbidly obese patients [2]. However in this case we performed the surgery using the standard 3-port lateral retroperitoneoscopic approach. The successful clinical outcome in the present case further testifies the safety and efficacy of retroperitoneoscopic adrenalectomy in morbidly obese patients.

**References**