Adrenal Cushing’s syndrome

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INTRODUCTION

Cushing’s syndrome is due to a chronic excess of glucocorticoids. It is rare (10 cases per million inhabitants per year); 70% of cases are caused by excessive ACTH production in the pituitary, 10% by ectopic ACTH production, and the remaining 20% by suprarenal Cushing’s syndrome due to adenomas (10%), carcinomas (10%) or primary bilateral hyperplasia (1).

Surgery to correct Cushing’s syndrome has high morbimortality (greater than 10%), with wound infection, hemorrhage, pulmonary embolism, and respiratory problems being the most common complications (1).

Laparoscopic adrenalectomy is the current treatment of choice for benign adrenal disease (2,3).

CASE REPORT

In a 58-year-old woman with a history of asthmatic bronchitis, joint pain, salmonellosis, type I obesity (body mass index 32.3 kg/m²), appendectomy, tonsillectomy, and adenoidectomy, a cushingoid phenotype was detected during postpartum control of gestational diabetes. She presented “moon face”, with facial puffiness and redness, hirsutism, “buffalo hump”, cutaneous striae and ecchymosis, and amenorrhea (Fig. 1). Cortisol levels in urine and serum and baseline ACTH were compatible with ACTH-independent hypercortisolism (free cortisol in the urine, 1321 µg/24 h; cortisol 08:00 a.m., 23.21 µg/dl; ACTH 8:00 a.m., 7.89 pg/ml). Abdominal CT detected a left adrenal tumor (Fig. 2). We used a lateral transperitoneal lateral laparoscopic approach using 4 trocars, freeing the splenic flexure of the colon and moving the spleen and pancreas toward the midline. The main left adrenal vein and accessory veins and arteries were sectioned, and the adrenal gland with the tumor was completely excised; hemostasis was checked and the specimen was extracted in a sac by widening the orifice of the optical trocar. The definitive diagnosis was adrenal cortical adenoma (5 x 3.5 x 2.5 cm in diameter) (Fig. 3). The patient was discharged on the third day without complications, and prescribed steroid-replacement therapy.

Fig. 1. Patient in the right lateral decubitus position: note the “moon face”, central obesity, and cutaneous striae and ecchymosis.

Fig. 2. Coronal abdominal computed tomography, 4D reconstruction: left adrenal tumor (arrow).
DISCUSSION

Surgery for adrenal adenoma gradually improves symptoms; metabolic and clinical alterations disappear in 4-6 weeks. High blood pressure takes longer to cure, persisting in 20-30% of cases, and central obesity takes more than one year to improve (1).

In general terms, a laparoscopic approach is recommended for surgery on benign adrenal lesions. We have performed 36 adrenalectomies in the last 6 years, including 6 to treat Cushing’s syndrome; no complications were seen in any of these 6 cases (4).

Laparoscopic adrenalectomy has the advantages of minimally invasive surgery (small incisions, less blood loss, minimal postoperative complications, less postoperative pain, earlier walking, shorter hospital stay, and rapid return to work) (2-4).

REFERENCES