Laparoscopic Partial Adrenalectomy in a Child with Bilateral Pheochromocytoma

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Abstract

Introduction and Objectives: Patients with von Hippel-Lindau disease are predisposed to multiple and bilateral adrenal pheochromocytoma. In these patients partial adrenalectomy may preserve adrenocortical function to avoid or reduce the morbidity associated with medical adrenal replacement. We describe a successful case of partial laparoscopic adrenalectomy in a child with bilateral pheochromocytoma associated with von Hippel-Lindau's disease.

Materials and Methods: The patient, whose father had been found to have von Hippel-Lindau's disease and treated earlier unilateral adrenal pheochromocytoma, presented at age 9 with symptoms of night sweating and palpitation, and had the diagnosis of 3-cm right adrenal pheochromocytoma. He was then submitted to a successful total right laparoscopic adrenalectomy, with complete remission of the symptoms. At age 12, the symptoms recurred, and a left 2.5-cm adrenal tumor was diagnosed. Immediate preoperative Doppler US showed that adjacent to the antero-medially located tumor there was a well-vascularized, 1.5 cm long, nonaffected, healthy-looking, postero-lateral segment of the adrenal gland that could eventually be preserved. He was submitted to a transperitoneal laparoscopic procedure, which included section of the main adrenal vein and complete resection of the tumor, leaving the well-vascularized remnant adrenal *in situ*.

Results: Pathological examination of the specimen showed a benign pheochromocytoma with free margins. The patient was discharged in the second postoperative day. Cortisone replacement was initiated but interrupted after 2 weeks, since laboratory controls showed that the remnant adrenal was functioning. The child has a follow-up of 10 months without any symptoms or medication.

Conclusions: Partial laparoscopic adrenalectomy is a feasible therapeutic alternative in children with bilateral benign adrenal lesions. When necessary, the ligation of the main adrenal vein does not preclude the success of the procedure.

No competing financial interests exist.

Runtime of video: 6 mins 56 secs

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