Giant Adrenal Adenoma with Hyperaldosteronism

Rika Horii¹, Toshio Kahara¹, Hiroshi Akahori¹, Akio Uchiyama², Atsuo Miwa² and Rika Usuda¹

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A 35-year-old Japanese man with an approximately ten-year history of hypertension was referred to our hospital because of cataplectic attacks. His serum potassium level was low (2.6 mEq/l) and abdominal computed tomography (CT) revealed left adrenal giant tumor. The results of hormonal examination were as follows: ACTH 13.9 pg/ml (reference range: 4.4-48.0), cortisol 11.3 μg/dl (5.0-17.9), plasma renin activity (PRA) <0.1 ng/ml/h (0.2-2.7), plasma aldosterone concentration (PAC) 594 pg/ml (45-105.5), DHEA-S 1,250 ng/ml (1,150-4,600). Plasma levels of catecholamines were normal. His BP was 180/100 mmHg despite taking antihypertensive agents (spironolactone 50 mg/day, nifedipine 20 mg/day, candesartan 8 mg/day, clonidine 150 mg/day, atenolol 50 mg/day). Laparoscopic adrenalectomy was performed on July 15, 2002, and an

¹Department of Internal Medicine, Toyama Prefectural Central Hospital and ²Department of Pathology, Toyama Prefectural Central Hospital

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Reprint requests should be addressed to Rika Horii, Department of Internal Medicine, Toyama Prefectural Central Hospital, 2-2-78 Nishinagae, Toyama 930-8550
adrenal adenoma measuring 7.5×6.0×5.5 cm and weighing 122 g was removed. PAC, PRA, and serum potassium levels had been within the respective normal ranges for one year. Although the doses of antihypertensive drugs had been reduced, he remained hypertensive after curative surgery. Abdominal CT after one year demonstrated no recurrence. Aldosterone-producing adenomas very rarely exceed 2.0 cm in diameter. This case is the largest tumor reported to date in the English language literature.