Pictures in Clinical Medicine

A Case of Juvenile Hypertension Suggestive of Adrenomedullary Hyperplasia

Yoshito Nishimura, M.D., Miho Yasuda, M.D., Kou Hasegawa M.D. and Fumio Otsuka, M.D., Ph.D.

Department of General Medicine, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama 700-8558, Japan

Corresponding author: Yoshito NISHIMURA, M.D.

Department of General Medicine, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, 2-5-1 Shikata-cho, Kita-ku, Okayama 700-8558, Japan.

E-mail: me421060@s.okayama-u.ac.jp

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Text:

A 29-year-old man with a history of cerebellar stroke was referred due to refractory hypertension. His blood pressure was 162/91 mmHg even with doxazosin, nifedipine and cilnidipine. Urinary excretions of catecholamines (adrenaline, 59.1 μg/day; noradrenaline, 1043.9 μg/day) were elevated. No tumor was detected in the adrenal gland by computed tomography (**A**, arrowhead) or magnetic resonance imaging (**B**, arrow). However, ^{123}I-MIBG single-photon emission computed tomography (SPECT) revealed the specific uptake in the bilateral adrenal glands with a tumor/liver (T/L) ratio of 1.83 in the left and 2.10 in the right (**C**, **D**), findings suggestive of adrenomedullary hyperplasia (AMH). Clonidine failed to reduce the plasma catecholamine levels. AMH is basically stable under α-blocker treatment but is considered to be a preclinical condition of pheochromocytoma [1]. Due to the high sensitivity of ^{123}I-MIBG SPECT, we were able to detect false-positive AMH; however, combining imaging findings with the T/L ratio may improve the diagnostic performance [2]. AMH should be considered as a differential diagnosis of refractory juvenile hypertension. (164 words)

Key words: Adrenal medullary hyperplasia, Stroke, Hypertension and catecholamines

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References

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