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Pictures in Clinical Medicine

A Case of Juvenile Hypertension Suggestive of Adrenomedullary Hyperplasia

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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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