Bilateral calcified renal artery aneurysms in a patient with von Recklinghausen’s disease

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Case

A 68-year-old woman with family history of fibromatous skin lesions was referred for the evaluation of hypertension. With detection of multiple fibromatous skin lesions and café au lait spots, a diagnosis of von Recklinghausen’s disease was made. Because she had not undergone regular physical examination, the history of hypertension was unknown. Findings of bilateral paravertebral calcified round shadows in a plain abdominal radiograph (Figure 1A) indicated secondary hypertension including pheochromocytoma as a cause of hypertension. Computed tomography (CT) of the abdomen revealed that the shadows reflected ring-shaped calcifications at the hilus of both kidneys (Figure 1B). Reconstructed images of enhanced CT demonstrated these ring-shaped calcifications were bilateral calcified renal artery aneurysms but not paravertebral neoplasms (Figure 1C). No stenotic lesions were detected in either renal artery and proper renal perfusion was confirmed by further evaluation.
with captopril-loaded renoscintigram. Therefore, no invasive treatments were undertaken for these well-calciﬁed renal artery aneurysms. The results of serum and urine analysis did not show any endocrinological abnormalities and systemic blood pressure was normalized with administration of a calcium-channel blocker.

Comments

In patients with von Recklinghausen’s disease, which is also called neurofibromatosis, pheochromocytoma has been found in 3.3–13.0% of cases at autopsy [1]. It is also reported that arterial disease secondary to neurofibromatosis causes renovascular hypertension [2]. Therefore, when hypertension is detected in the patient with neurofibromatosis, pheochromocytoma and renovascular hypertension should be suspected and thorough abdominal examination should be performed.

In the present case, we detected abnormal lesions in a plain abdominal radiograph. Further evaluation by CT revealed these abnormal lesions to be calciﬁed renal artery aneurysms. The ﬁnding of these aneurysms on plain radiograph is a good example of the plain radiograph still being an important tool for initial screening.

In cases of renal artery aneurysm, renal perfusion might be disturbed, causing renovascular hypertension [3]. Functional evaluation by renoscintigram is a useful tool to detect abnormal renal perfusion in renovascular hypertension.

Conflict of interest statement. None declared.

References