Reversible cerebral vasoconstriction syndrome with reversible renal artery stenosis

Figure Brain and vascular imaging findings

Brain MRI shows crescentic cortical-subcortical T2-hyperintense lesions in both occipital-parietal lobes (A). Head/neck CT angiography shows focal dissections (B, C) and irregularities affecting both vertebral arteries. Abdomen CT angiography shows right renal artery stenosis (D). All abnormalities resolved spontaneously within a few months, including renal artery narrowing (E).

A 41-year-old woman presented with thunderclap headaches, cortical blindness, generalized seizures, and severe hypertension. Brain imaging (figure) showed features of reversible cerebral vasoconstriction syndrome (RCVS) and posterior reversible encephalopathy syndrome.¹ Her neurologic examination improved, but severe hypertension persisted. Abdomen CT angiography showed right renal artery narrowing with possible dissection, initially attributed to fibromuscular dysplasia (FMD). Renal angioplasty was considered; however, she was discharged on multiple antihypertensive agents. Her blood pressure normalized, and parenchymal lesions and vertebral/renal artery abnormalities showed complete resolution on follow-up at 7 months. This case emphasizes that RCVS can affect the extracerebral systemic arteries,² and can be misinterpreted as FMD.

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