Bilateral Insular Lesions Related to Malignant Hypertension

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Picture.

A 25-year-old man with untreated hypertension gradually developed blurred vision and nausea. At admission, his blood pressure was 216/164 mmHg. A diagnosis of malignant hypertension was made and his visual symptom was attributed to hypertensive retinopathy (Picture A). Neurological examinations were not remarkable except for generally brisk deep tendon reflexes. Initial brain MRI showed abnormal signals in the bilateral subinsular white matter on T2-weighted (Picture B) and diffusion-weighted sequences. The

lesions showed elevated apparent diffusion coefficient (ADC) (Picture C). Hypertension was well controlled by nifedipine and olmesartan medoxomil and the abnormal subinsular signals were almost completely resolved (Picture D).

Hypertensive emergency typically involves posterior cerebral white matter, hence the term posterior reversible encephalopathy syndrome (PRES) (1). Although the subinsular lesions of our patient are atypical, reversible vasogenic

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edema, demonstrated by transiently increased ADC signal, is a hallmark of PRES, which is presumably caused by breakdown of cerebral autoregulation (2).

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