Teaching NeuroImages: Hemorrhage associated with reversible posterior leukoencephalopathy syndrome

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A 23-year-old woman developed vision loss and a generalized seizure after a rise in blood pressure. Neuroimaging revealed reversible posterior leukoencephalopathy syndrome (RPLS) and intracerebral hemorrhage (ICH) (figure, A).

A 30-year-old woman with renal failure had a seizure after missing her antihypertensive medications. Head CT demonstrated subarachnoid hemorrhage (SAH). CT angiogram was unremarkable. MRI revealed RPLS (figure, B and C).

RPLS causes vasogenic subcortical edema associated with acute hypertension or medications. In one series, 2/38 cases had associated ICH. In a series of isolated convexity SAH, 5/20 cases had RPLS. The co-occurrence of RPLS should be considered in patients with acute hypertension and ICH or SAH.

REFERENCES

Figure Two cases of reversible posterior leukoencephalopathy syndrome with hemorrhage

(A) Head CT shows occipital white matter hypodensity with left occipito-parietal and internal capsule intracerebral hemorrhage. Magnetic resonance venography showed no thrombosis. MRI confirmed posteriorly predominant vasogenic edema, which completely resolved on a 10-month follow-up scan (MRIs not shown). (B) Head CT demonstrates subarachnoid hemorrhage in the left precentral sulcus. (C) MRI fluid-attenuated inversion recovery image demonstrates posteriorly predominant vasogenic edema.

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