Giant Tumefactive Perivascular Spaces in a Patient Presenting With a First Seizure

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A 53-year-old man with hypertension presented with a generalised tonic-clonic seizure. General and neurological examination, serology and ECG were normal. MRI brain revealed asymmetrical tumefactive perivascular spaces (PVSs) with right frontal mass effect (Figure 1). PVSs are pial-lined, interstitial fluid-filled structures which may be detected incidentally[1]. Giant PVSs are rare and imaging appearances can be dramatic. PVSs are more common in people with hypertension[1]. PVSs are more asymmetrically clustered in those with focal epilepsy than controls[2], suggesting a possible role in pathogenesis. In this case, EEG showed slow and sharp waves in the right fronto-temporal lobes, suggesting possible PVS-related seizure susceptibility.

Figure 1 - Giant Tumefactive Perivascular Spaces in a Patient Presenting with a First Seizure

Figure legend: Axial T2-weighted (A&B), coronal T1-weighted (C), and postcontrast coronal T1-weighted (D) images show non-enhancing multilocular asymmetrical giant perivascular spaces with extension to the subcortical white matter. The cortex appear stretched over the cysts on the right (arrow heads).
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