NEUROLOGICAL PICTURE

Persistence of MRI changes in central pontine myelinolysis

A 21 year old woman with a four year history of anorexia, bulimia, depression, and alcoholic liver disease presented elsewhere in stupor, incontinent of urine and with extensor plantar responses. Serum sodium concentration was 111 mmol/l which rose to 122 mmol/l at 20 hours and 134 mmol/l at 92 hours after commencement of an intravenous infusion of 2N saline. She improved but was readmitted nine days later with dysarthria, finger-nose ataxia, and poor tandem gait. Brain CT (figure, A) showed extensive low density in the central pons. Sagittal and coronal T1 (figure, B, C) and axial T2 weighted MRI (figure, D) after 10 weeks showed abnormal signal in the pons with an intact rim around the surface, as is seen in pathological specimens.¹ Four months later she had made a full neurological recovery, but repeat MRI at seven months showed no change. Persisting pontine defects on MRI² must be considered if these patients need subsequent imaging for possibly unrelated neurological illness.

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2 Thompson PD, Miller D, Gledhill RF, Rossor MN. Magnetic resonance imaging in central pontine myelinolysis. *J Neurol Neurosurg Psychiatry* 1989;52:675-77.