

Bilateral basal ganglia lesions in a diabetic-uremic patient with dystonia

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A brain MRI was performed 6 months after sub-acute onset of persistent left arm dystonia in a 35-year-old woman with drug-related interstitial tubulointerstitial nephropathy and diabetes mellitus type 1. It showed bilateral putaminal lesions with a slight left sided predominance (Fig. 1). Wilson's disease was ruled out by the absence of ophthalmologic and hepatic features, and normal copper and ceruloplasmin levels. The MRI was consistent with earlier reports of basal ganglia lesions in diabetic-uremic patients with acute movement disorders. Although clinical and radiological improvement is often seen in these patients, persistence of clinical

and radiological abnormalities (like in our patient) is frequently encountered (Wang et al., 1998; Li et al., 2008). The precise pathophysiology is unknown. Dystonia is most often associated with lesions in the putamen and/or the globus pallidus, that occur in a number of metabolic, traumatic or degenerative brain disorders. Basal ganglia lesion-induced dystonia often develops after a delay, suggesting that secondary neuroplastic changes in other brain regions are important in its pathophysiology.

REFERENCES

 Wang HC, Brown P, Lees AJ. Acute movement disorders with bilateral basal ganglia lesions in uremia. Mov Disord. 1998;13:952-7.

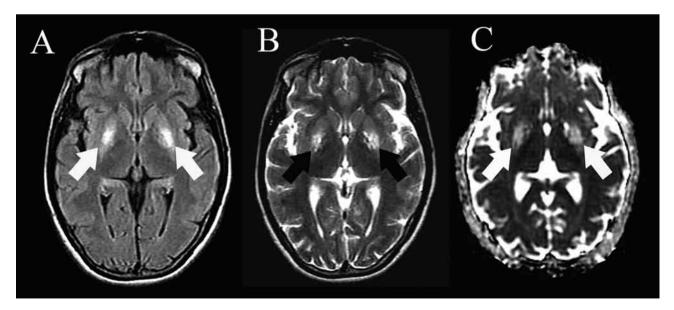


Fig. 1. — Brain MRI showing hyperintense lesions in both putamina, slightly predominating on the left side, on FLAIR (A), T2-weighted (B), ADC (C), and gradient-echo (not shown) imaging. The lesions were isointense on T1-weighted and DWI imaging (not shown).

2. Li JY, Yong TY, Sebben R, Khoo E, Disney AP. Bilateral basal ganglia lesions in patients with end-stage diabetic nephropathy. Nephrology. 2008;13:68-72.

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