Bilateral Basal Ganglia Lesions in a Hemodialysis Patient

Shu-Ming Wang, Chung-Lin Hsieh, Chiu-Ching Huang and Jiung-Hsiun Liu

Division of Nephrology and Kidney Institute, Department of Internal Medicine, China Medical University Hospital, Taichung, Taiwan

Correspondence to: Dr. Jiung-Hsiun Liu, jiunghsiun@yahoo.com.tw

Key words: basal ganglia, hemodialysis, end-stage renal disease

Consciousness disturbance is a common problem in patients undergoing dialysis. For uremia patients who present with consciousness disturbance and specific findings focus on the bilateral ganglions on an imaging study are rare.

A 52-year-old female was admitted because of general weakness and drowsy consciousness for one day. Her past history included end-stage renal disease; she had been on regular hemodialysis for 5 years. An abrupt attack of seizure (grand mal) occurred during hospitalization. Computed tomography of the brain showed bilateral basal ganglions with hypo-dense lesions. T1-weighted magnetic resonance (MR) image demonstrated abnormally low-intensity T1 signal at basal ganglions and a high signal on T2-weighted MR image (Picture 1).

The underlying etiology of this clinical presentation is not fully understood in our patient. Some studies have suggested that this is related to brain hypo-perfusion, or uremia toxins and it may be closely related to diabetic mellitus.^{1,2} Furthermore, the syndrome in uremia patients implies a complicated clinical course and a poor long-term prognosis.^{1,2}

References

- Wang HC, Brown P, Lees AJ. Acute movement disorders with bilateral basal ganglion lesions in uremia. Mov Disord 13: 952-957, 1998.
- 2. Wang HC, Cheng SJ. The syndrome of acute bilateral basal ganglion lesions in diabetic uremic patients. J Neurol **250**:948-955, 2003.