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Letters to the Editor

Reversible hyperglycemic encephalopathy in a hemodialysis patient

Dear Editor;

A 77-year-old woman, with history of diabetes mellitus, hypertension, and hyperlipidemia for decades, developed end-stage renal disease under maintenance hemodialysis since 2 years ago. She had poor compliance with medications and diet instructions. She presented with blurred vision and general weakness for 1 week. Intermittent eyes deviation to left side with preferential gazes was also reported, with each episode lasting for 1 minute and frequency up to seven times daily. She also sighted persons and objects that did not exist in real world. She was brought to our institute for evaluation. On examination, her blood glucose level fluctuated between 480 and 540 mg/dL, and HbA1c was 11.4%. Electroencephalogram showed epileptiform discharges from right occipital area. Brain computed tomography found no intracranial hemorrhage, but magnetic resonance imaging disclosed prominent subcortical white matter hypointensity and gray matter hyperintensity on T2-weighted images, at right occipital lobe (Figure 1). Mild diffusion restriction was also noted over corresponding area. Insulin infusion was started to aggressively control her hyperglycemia, and we implemented strict diet regulation. Her visual hallucinations and occipital seizure resolved completely after glycemic control attained, and she was discharged after insulin dosage well adjusted.

In chronically dialyzed patients with diabetes mellitus, hyperglycemia seldom leads to hyperosmolarity syndrome owing to their anuric status and gradual adaptation to azotemia, while seizure from hyperglycemia is rare. Nonketotic hyperglycemia related seizure in poorly controlled diabetic patients mostly affects caudate nucleus and

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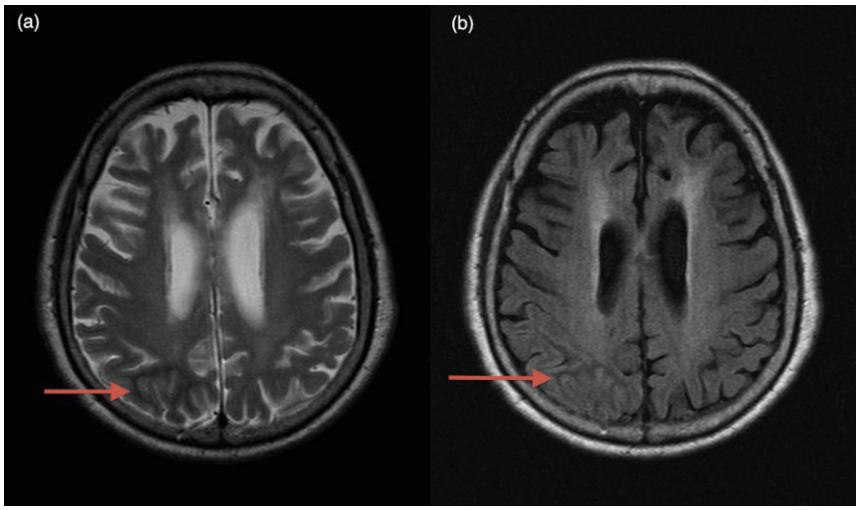

Figure 1 (a) Magnetic resonance imaging (T2-weighted) showed hyperintensities over gray matter of right occipital region, with hypointensities in surrounding subcortical area (arrow). (b) Fluid Attenuation Inverted Recovery showed similar hypointensities over right occipital region (arrow). Obliteration of sulci from focal edema was also present.

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putamen, due to regional hypoperfusion or local γ-aminobutyric acid depletion,[1,2] but occurrence in occipital lobes is rare.[3] The pathogenesis is still controversial, but vasogenic edema and excitotoxic axonal damage during seizures are reportedly responsible.[3] Improving glycemic control usually reverses the presentations promptly.

Conflict of Interest: The authors have no financial conflict of interest.

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Please, take X-ray!

To the Editor:
We read the paper entitled "Recognizing misplacement of a dialysis catheter in the azygos vein"[1] with great interest. The malposition of a catheter tip is an important problem in nephrologists' practice. Statistics of catheter malposition vary a lot,[2,3] but it seems it is not a very rare complication and several cases of malposition in a vena azygos were described before.[2–4] We would like to make few important remarks to this article.

1. We do not agree with the statement that X-ray is not required in "urgent and not clinically complicated right jugular approaches." In our opinion, it is too controversial because:
   a. The authors wrote "the value of routine chest radiographs after central veins catheterization is questioned by different studies" and cited two studies.[5,6] The first study, published in 1999, described a relatively small group of 107 patients with central vein cannulation.[5] The second described a large group of 2230 patients[6] and gave some very important information. According to the authors, radiographic evaluation after central venous cannulation should be selected for patients when catheter is intended for (1) measurement of central venous pressure; (2) high-flow use; or (3) infusion of local irritant drugs. Dialysis catheters are **always** intended for high-flow use, so according to the cited paper, **on every case** of dialysis catheterization X-ray **must** be taken![1,6]
   b. It is true that sometimes X-ray is not recommended—but **only** when catheter was inserted under fluoroscopic control.[7] Assessment of jugular veins by ultrasound and catheterization under fluoroscopy should be considered in every case. In our opinion, it is obligatory when left jugular vein is cannulated because of the high risk of malposition.[4]
2. The first hemodialysis after catheterization should always be monitored carefully, not only because of the

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