Dialysis for severe hyponatraemia in preeclampsia

We read Professor Hennessy's case report entitled 'Dialysis for severe hyponatraemia in preeclampsia' published in the March 2010 issue of *Obstetric Medicine* (*Obstet Med* 3(1):38–9; doi:10.1258/om.2009.090062) with interest. We had a few queries/comments on the same.

Did your patient have investigations such as serum and urine osmolality and urinary sodium to confirm/refute the presence of SIADH (Syndrome of Inappropriate Anti-Diuretic Hormone secretion)? If so, what did the results show?

In cases such as yours where progressive hyponatraemia persists despite fluid restriction, vasopressin receptor antagonists (VRAs) might be an appropriate choice of treatment before resorting to invasive treatment such as dialysis. VRAs such as Tolvaptan (a selective V2 receptor antagonist) and Conivaptan (a mixed V1a receptor and V2 receptor antagonist) have been shown to produce a significant rise in serum sodium concentration in randomized placebo controlled trials.^{1,2} A significant rise in serum sodium concentration occurs eight hours after the first administration of oral Tolvaptan. Conivaptan shows the same result over the short-term beginning as early as 1–2 hours after administration intravenously. Conivaptan would be the preferred agent in patients with hyponatraemia

who are unable to take oral medication or in whom more rapid correction of hyponatraemia is desired. Both trials did not show any evidence of pontine myelinolysis with correction of serum sodium at a rate of 6.8 ± 0.8 mmol/L/24 hours to 9 ± 0.8 mmol/L/24 hours.

VRAs have been given Food and Drug Administration approval for the treatment of euvoemic hyponatraemia (e.g. SIADH, post-operative hyponatraemia) and hypervolaemic hyponatraemia (e.g. congestive cardiac failure and cirrhosis) and show real promise in the treatment of clinically significant hyponatraemia.

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REFERENCES

- 1 Schrier RW, Gross P, Gheorghiade M, *et al.* Tolvaptan, a selective oral vasopressin V2-receptor antagonist, for hyponatremia. *N Eng J Med* 2006;355:2099–112
- 2 Greenberg A, Verbalis JG. Vasopressin receptor antagonists. *Kidney Int* 2006;69:2124–30