

SYNDROME OF INAPPROPRIATE ANTI-DIURETIC HORMONE(SIADH) AND PRE-ECLAMPSIA—A RARE ASSOCIATION.

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Introduction: Pre-eclampsia is rarely associated with hyponatremia. SIADH as a cause of hyponatremia in pre-eclampsia is very rare. There are 9 case reports in the literature of which only 2 were due to SIADH. We report the third case of a rare association of pre-eclampsia and SIADH and discuss the clinical significance. **Case :** A 30 year old healthy female in her first pregnancy presented at 32 weeks gestation with premature contractions. Lab tests showed a serum sodium(Na) of 123mmol/L, potassium 4.3mmol/L, BUN 9mg/dL, Creatinine 0.6mg/dL. She was tocolysed with Nifedipine. At 33 weeks follow up, her Na was 124mmol/L. Renal and liver function tests remained normal. She had proteinuria of 5940mg in 24 hours. Urine osmolality was 325 and urine Na was 77mmol/L. TSH, T4 and cortisol levels were normal. SIADH was diagnosed and the patient was placed on fluid restriction. Over the next 3 days, her Na stabilized to 128mmol/L but on day 4 she developed worsening pre-eclampsia, blood pressure elevation (150/90) and hyponatremia. Labor was induced and a healthy neonate was delivered. The maternal Na rose to 136 mmol/L in 48 hours and proteinuria resolved. Fetal Na was 128mmol/L at birth and 137mmol/L in 48 hours. **Comment:** In pregnancy, osmotic release of ADH is reset to a lower threshold and serum Na drops by 4mmol/L. However, these physiological changes do not usually cause significant hyponatremia. The mechanism of SIADH in pre-eclampsia is not clear. It may include defective inactivation of ADH by placenta or increased production of ADH and oxytocin by the placental unit in pre-term labor. Acute hyponatremia may be associated with seizures and in pre-eclampsia, the risk is likely to be higher. Fetal Na rapidly equilibrates with maternal Na. Suppression of fetal ADH axis increases fetal urine output and may lead to polyhydramnios. In stable patients fluid restriction and close monitoring should be instituted. Oral NaCl or hypertonic saline may be helpful in worsening hyponatremia. Drugs including demeclocycline and conivaptan are contra-indicated in pregnancy. Definitive treatment remains timely delivery of the fetus which leads to resolution in all reported cases.