

**Title:** A case report of Primigravida with severe hyponatremia, empty sella syndrome and secondary pontine myelosis (ODS) managed, delivered with good outcome

There is no relevant Conflict of Interest for all authors



**Case** -A 35 yr old primigravida known to have Hypogonadotropic hypogonadism and empty sella syndrome , conceived with IVF presented to the ER department at 12 week gestation with altered sensorium, aggressive behavior, irrelevant talk since last 6-8 hours with history of vomiting, fever and severe headache since the last 2 days Serum electrolytes at admission showed sodium 99.4 M eq, chloride 67.2 M eq and was admitted to ICU for slow sodium correction however sodium levels rose unexpectedly quickly in spite of careful attempt at correction. Endocrinologist suggested Cerebral salt wasting syndrome and steroid cover was commenced, she recovered and was discharged home only to be readmitted 4 days later with h/o confusion and irrelevant talking. Brain MRI showed extrapontine myelinolysis and EEG done showed abnormalities with periodic sharp and slow waves from right temporal region, she was admitted in ICU under a neurologist and Psychiatrist who treated her for manic psychosis, secondary to organic cause with Olanzapine 5mg With supportive care she improved and was discharged on Tablet Syndopa which was withdrawn after 2 weeks, hydrocortisone, sertraline She developed severe pedal edema with no overt cause ,assumed to be due to steroid intake, serial fetal growth scans were normal She chose to have an elective cesarean section at 38 weeks which was performed uneventfully with female baby of 2.7 kg born. Postnatally she had lactation failure due to low prolactin and baby was formula fed, postnatal recovery was otherwise uneventful

### Discussion

An empty sella refers to an enlarged sella turcica that is not entirely filled with pituitary tissue. Primary empty sella is characterized by a defect in the diaphragm sella that is thought to allow cerebrospinal fluid (CSF) pressure to enlarge the sella ,Secondary empty sella is characterized by association of the empty sella with an identifiable disease of the pituitary gland. This is the likely cause of patients hypopituitarism [1]

Hyponatremia can be ,Acute –over a period of less than 48 hours, usually results iv fluid administration in postoperative patients with ADH hypersecretion or from self-induced water intoxication. Chronic – If it is has been present for 48 hours or more

Severe hyponatremia – A serum sodium concentration of <120 mEq/L causes cerebral edema, seizures, obtundation, coma, and respiratory arrest Overly rapid correction of hyponatremia can lead to a severe and sometimes irreversible neurologic disorder called the osmotic demyelination syndrome (ODS) [2] whose symptoms include dysarthria, dysphagia, paraparesis , quadriparesis, movement disorders, "locked in syndrome"

**References :** [1] The "empty" sella turcica--a manifestation of the intrasellar subarachnoid space. AU Kaufman SO Radiology. 1968;90(5):931  
[2] Karp BI, Lauren R. Pontine and extrapontine myelinolysis: a neurologic disorder following rapid correction of hyponatremia. Medicine (Baltimore) 1993; 72:359.