

Case Report

Age:31 Gravida 1 Para O 34 Weeks Pregnant

Presenting Symptoms:

Severe Hypertension ,reduced movements , Proteinuria

Laboratory Findings:

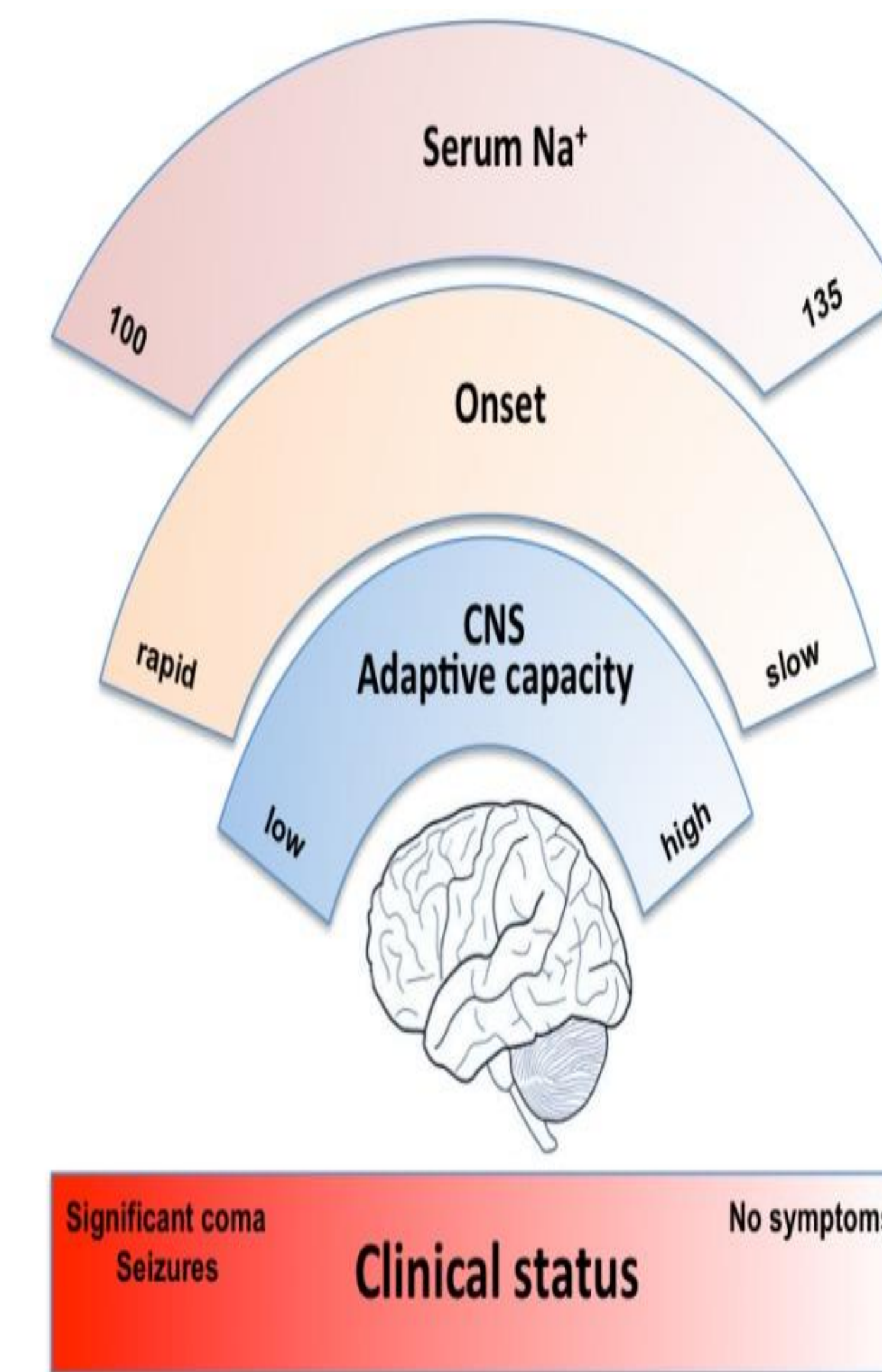
Na: 128 PCR: 1035.5mg/mmol, Creat 1.2, Urinary Protein 3.5g/dl

Ultrasound:

Intrauterine growth restriction (7th centile) with oligohydramnios and normal dopplers

Management

- The patient had severe hypertension and proteinuria but no signs of imminent eclampsia.
- Labetalol and nifedipine were administered for blood pressure control.
- Investigations revealed moderate hyponatremia (128 mmol/l) and nephrotic range proteinuria.
- Steroids were given for fetal optimization.
- A multidisciplinary review resulted in a fluid restriction recommendation of 30mls/hr.
- Despite fluid restriction, hyponatremia worsened to severe (122 mmol/l).
- The patient was advised to expedite delivery and underwent an uncomplicated caesarean section 36 hours after admission.
- Fluid restriction continued post-birth, and sodium levels and blood pressure normalized within 48 hours.
- The baby's sodium level mirrored the mother's at birth (120 mmol/l) and normalized within 48 hours using intravenous saline solution for correction.



Discussion

- Maternal hyponatremia is an emerging concern in labour with increasing reported cases.
- Hyponatremia can lead to maternal confusion, seizures, and neonatal morbidity (jaundice, tachypnoea, seizures).
- Hyponatremia can be classified as mild (130-135 mmol/L), moderate (125-129 mmol/L), or severe (<125 mmol/L).
- Hyponatremia is a rare complication of preeclampsia
- Hypervolemic hyponatremia or syndrome of inappropriate secretion of antidiuretic hormone (SIADH) are postulated mechanisms for hyponatremia in preeclampsia.
- Managing preeclampsia complicated by hyponatremia is challenging.
- Initial approach includes blood pressure control, fluid restriction, and close monitoring of sodium levels.
- In cases where fluid restriction is ineffective, oral sodium chloride or 3% hypertonic saline can be administered.
- Expediting the birth of the baby may be necessary.
- Postpartum fluid restriction may be required for up to 48 hours.

Conclusion

Preeclampsia associated with hyponatraemia is rare. It can be life-threatening for mothers and neonates and a multidisciplinary team approach is required. Ongoing evaluation of women with risk factors for hyponatremia in labour is helpful in ensuring it is diagnosed on time and managed appropriately. Definitive treatment is delivery.

References

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