Management of a parturient with severe pre-eclampsia complicated by hypokalemic periodic paralysis

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Introduction

- **Hypokalemic Periodic Paralysis (HPP)** is a rare disorder causing episodic, severe muscle weakness due to low serum potassium.
- We present a case of **HPP complicated by life-threatening rhabdomyolysis** and **superimposed pre-eclampsia with severe features**.

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Case

- 27-year-old G3P0020 at 34 weeks with fatigue, edema, and profound weakness; **K^+ 1.4 mmol/L**.
- Exam: lower-extremity edema, hyporeflexia, **1/5 strength**. TEE - EF of 25%
- Labs: **CK 9478**, **troponin 1278**, **Cr 1.7**, **Mg 1.6**; hypertensive with proteinuria.
- Diagnosed: **rhabdomyolysis secondary to HPP.**
- Treatment: fluids and IV electrolytes showing improved kidney function
- On Day 4 she developed **flash pulmonary edema → hypoxia → emergent intubation**; and subsequent fetus with persistent bradycardia.
- Underwent **emergent cesarean delivery**; infant required 1-day NICU stay; maternal EF normalized to 55%.

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Teaching points

- Severe hypokalemia in pregnancy can unmask or worsen **HPP**, thus leading to complications such as rhabdomylysis due to muscle breakdown
- Cardiomyopathy may be seen in patients with no previous cardiac pathology and there are numerous challenges involved in a patient with dual pathologies that requires opposing fluid management strategies
- **Early interdisciplinary involvement** is essential for beneficial obstetric outcomes

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