Multidisciplinary Approach to Electroconvulsive Therapy in a Pregnant Patient

SOAP Society for Obstetric Anesthesia and Perinatology

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Introduction

- Maternal mental health issues during pregnancy and the postpartum period are an important public health concern
- Perinatal depression affects ~10-20% of pregnant women in the US
- Timely diagnosis and effective treatment are essential to minimize or avoid adverse maternal and neonatal outcomes
- Electroconvulsive therapy (ECT) is an effective and safe intervention for severe depression during pregnancy
- A multidisciplinary approach to providing ECT during pregnancy ensures its efficacy and safety

Case

- A 27-year-old G1P0 female in 2nd trimester of pregnancy with a primary psychiatric diagnosis of severe major depressive disorder was referred for ECT due to inadequate response to pharmacotherapy and transcranial magnetic stimulation
- A comprehensive care protocol was developed by a multidisciplinary care team, including Psychiatry (ECT service), MFM, OB Anesthesiology, and the Family Birth Center team

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Case

- **ECT treatment:** initiated at 23 weeks' gestation and administered 3x/week using ultra-brief pulse with right unilateral electrode placement
- **Location:** L&D unit due to fetal viability and the risk of preterm labor. OB and Neonatology teams on standby
- **Anesthesia:** GETA with RSI. Periprocedural management included preoxygenation, hydration, avoidance of hyperventilation, and administration of prokinetic and antiemetic agents
- **Fetal well-being monitoring:** pre- and post-treatment NST + doptones immediately after the procedure
- **Course of treatment:**
  - Home antidepressant medications continued
  - Stimulus energy titrated up from 20 to 30 J
  - Significant improvement in mood, affect, and functional engagement
  - After 14 ECT sessions, FGR was identified on US, leading to heightened maternal anxiety. The patient elected to discontinue treatment
- **Outcome:** uncomplicated vaginal delivery following induction of labor for PPROM at 36w3d GA

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Discussion

- Treatment of severe depression refractory to pharmacological management during pregnancy is very nuanced
- ECT therapy is a well-established, evidence-based treatment of severe depression during pregnancy
- Multidisciplinary collaboration, individualized risk-benefit assessment, and shared decision-making are key to successful management of severe perinatal depression

References

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