Pheochromocytoma in a pregnant patient: Anesthetic Considerations

Maria Muravyeva MD, PhD, (Jonathan Tlachac MD)
Medical College of Wisconsin – Milwaukee, WI

Pheochromocytoma and Pregnancy

- Extremely rare (0.002%) - misreading of common symptoms
- Mortality: if diagnosed Maternal <5%, Fetal - 15%; if undiagnosed 40-50%

Management: NEVER LABOR!

<table>
<thead>
<tr>
<th>I</th>
<th>II</th>
<th>III</th>
</tr>
</thead>
</table>
| Medical optimization 10-14 d (α ± β blocker) | Laparoscopic adrenalectomy | Medical optimization till fetus mature
| | | Combined surgery: CS + pheno removal |

Clinical Case

HPI: 29 y F G2P2 at 22 weeks of gestation, admitted with SBP > 220 mmHg, blurred vision, and suicidal ideation

PMH: GERD

Labs: High Epi and NE in urine

MRI: 2.8 X 2.2 cm L adrenal lesion

Surgery ← 22-23-24w → Wait

- Technical difficulties
- Utero-placental insufficiency
- Abruption
- Fetal exposure to medications
- Fetal movement
- Epi and NE release

Wait
Multidisciplinary approach

- Surgeon
- Endocrinologist
- Obstetrician
- Anesthesiologist
- Mother
- Fetus

- Preop: α-blocker Terazosin for 12 days
- Laparoscopic adrenalectomy at 23w6d
- Goals of resuscitation?
- Monitoring?

Verge of Viability

- Viable?
- FHR monitoring?
- Nonobstetric Surgery During Pregnancy

Anesthetic management

- Goal: Minimize hemodynamic instability
- Monitoring: Art line and CVP
- Induction: RSI vs controlled (+ bicitra, famotidine and cricoid pressure)
- Before pheo removal: Hypertension → Nitroglycerin, Mg, Remifentanil and Esmolol
- After vein ligation: Hypotension → Phenylephrine
- Postop period: Hypoglycemia → Dextrose

Survival

33%
Conclusion:
Pheochromocytoma and Pregnancy

- Management
  - ≤24w = laparoscopic adrenalectomy after α-ß blockade for 10-14 d
  - >25w = combined surgery when fetus is mature
- Airway: RSI vs controlled induction
- Hemodynamic stability: consider Mg and nitroglycerin
- Verge of viability: FHR monitoring and goals of resuscitation
- Avoid: steroids

References: