Avoiding Pheochromocytoma Crisis During Delivery in a Parturient with a Large Tumor and Lynch Syndrome
Avoiding Pheochromocytoma Crisis During Delivery in a Parturient with a Large Tumor and Lynch Syndrome

Stanford MEDICINE | School of Medicine

Avoiding Pheochromocytoma Crisis During Delivery in a Parturient with a Large Tumor and Lynch Syndrome

Julio-Santiago Pérez, MD; Fred Mihm, MD; Dominique Arce, MD, MPH; Kelly Thomas Joyce MD; Fatine Karkri, MD; Emily Stockert, MD, MBA

Patient:
A 20-year-old female with Lynch Syndrome, back pain, and atypical results on non-invasive prenatal lab testing at 13 weeks gestation.

Patient denied symptoms of headaches, hypertension, diaphoresis, or palpitations.

Full body MRI revealed a right adrenal mass.

GA 6W4D: Presents with Nausea and vomiting

GA 16W: Atypical CFDNA results found. Referral to Genetics

GA 18W: Patient experiencing pain at hips and upper back

GA 21W: MR body: 14.1 cm suprarenal mass

Following 9 weeks: Underwent multiple MRIs and marker tests

Avoiding Pheochromocytoma Crisis During Delivery in a Parturient with a Large Tumor and Lynch Syndrome

Search for a Diagnosis

Abnormal Lab findings

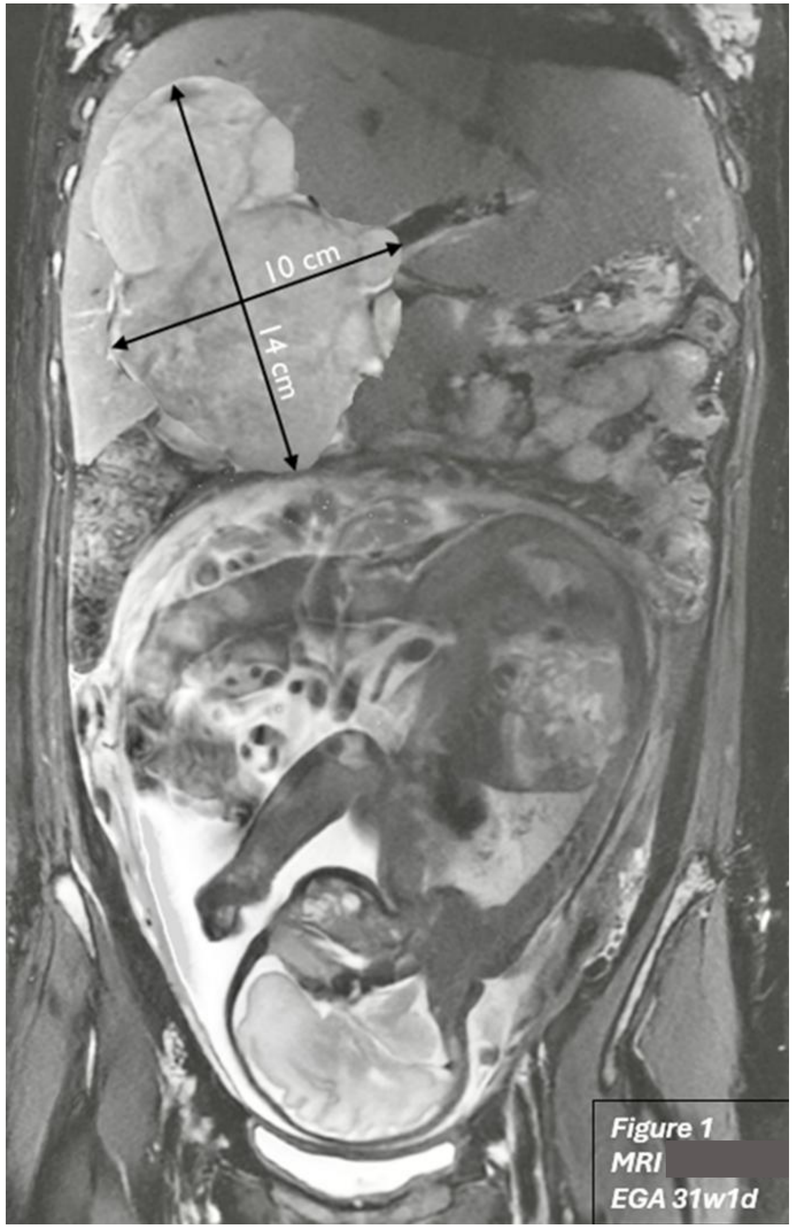
- **Urine normetanephrines 4115** (nl 103-390)
- **VMA 118.4** (nl 7)
- **HVA 83.8** (nl <8)
- metanephrine 193 (nl 30-180)
- total 4308 (normal 142-510)

Normal Lab Findings

- Urine dopamine 194
- Epinephrine 1.5
- Norepinephrine 49

GA 33W6D: Cesarean Delivery of healthy baby girl

7 weeks post-delivery: Open right adrenalectomy and tumor resection



Cesarean Delivery for Suspected Pheochromocytoma (PCC)

Timing:

- Elective, controlled setting, and avoiding labor.
- Delivery typically 34-37 wks
- CD first then resection later.

Optimization:

- Volume expansion
- Alpha-blockade > Beta-Blockade

Anesthesia:

- Neuraxial (epidural/spinal) preferred, monitor hemodynamics
- Avoid catecholamine release
    - Ketamine & ephedrine
    - Pain
- IV access & arterial BP
- Infusions/medications for hemodynamics

Stanford MEDICINE | School of Medicine

Avoiding Pheochromocytoma Crisis During Delivery in a Parturient with a Large Tumor and Lynch Syndrome

Preoperative management

Multidisciplinary team

- Interval imaging
- Labs (genetic)
- Clinical assessments
- Optimization with Doxazosin (shorter half-life)

Operative Management

- Cesarean Delivery at 33w6d

Vascular Access:

- RIJ central line (Sedation)
- Arterial line

Neuraxial Analgesia:

- CSE Fent 25 mcg, morph 0.1 mg, 1 mL 0.75% bupi

Infusions:

- Nitroprusside
- Clevidipine
- Esmolol (Risk vs Benefit)
- Oxytocin 1U / 7.5 U/hr
- Normosol 1,500 mL

Surgical Technique

- Generous uterine incision for easy extraction and avoidance of excessive abdominal compression

Complications:

- POD9: ED with postpartum endometriosis and bacterial vaginosis.
    - fever, tachycardia, and uterine tenderness.
    - Treated with Abx.

Tumor and Kidney Resection:

- 7 weeks postpartum
- No hemodynamic instability