PRENATAL CARE:
ANTIPHOSPHOLIPID SYNDROME

Week 68

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With SDH and .phrase slides by Chloé Altchek, MS4

Reading Assignment:
- ACOG Practice Bulletin #197, July 2018
  Inherited Thrombophilias in Pregnancy
- Review APLS Quiz on ACOG website
  https://www.acog.org/-/media/Districts/District-IV-Junior-Fellows-All-Members/MembersOnly/Week-1-Antiphospholipid-Syndrome.pdf?dmc=1&ts=20200203T0348328487
LEARNING OBJECTIVES

• To understand the pathogenesis of APLS

• To understand the impact of APLS on pregnancy

• To understand clinical criteria that should prompt screening for APLS

• To review the lab criteria for diagnosis of APLS

• To gain comfort counseling patients on treatment recommendations for APLS during prenatal care
CASE VIGNETTE

• Ms. A.P. is a 32 y.o. G3P0010 woman at 13 weeks by 1st trimester ultrasound who presents for an initial prenatal visit.

• She reports some mild nausea, otherwise has no complaints. She denies any pain or vaginal bleeding. This pregnancy was planned and she’s very excited.

• She states she’s very relieved she’s made it to this point in pregnancy as she had 2 prior losses at 11 weeks.
FOCUSED HISTORY

What elements of the patient’s history are most relevant?

• **POB:** SAB 11w1d – normal FTS  
  SAB 11w3d – normal FTS

• **PGYN:** Regular menses; No STI/Cysts/Fibroids; No abnormal paps  
  Contraceptive history: Condoms, DMPA

• **PMH:** Denies any thrombosis

• **PSH:** Denies

• **Meds:** PNV

• **All:** NKDA

• **FHx:** No history of thrombosis
PERTINENT PHYSICAL EXAM FINDINGS

What elements of the patient’s physical exam are most relevant?

• VS: P 76  **BP 117/74**  Wgt: 70kg  Hgt: 160cm
• Cor:  Regular rhythm, no M
• Pulm:  CTAB b/l
• Abd:  Soft, NT/ND, +BS x 4Q
• Pelvic:  *Vulva*: Normal external female genitalia; No lesions  
  *Vagina*: Healthy-appearing mucosa, No discharge  
  *Cervix*: Parous os; L/C/P  
  *Uterus*: NT, ~8wk size, anteverted  
  *Adnexae*: No mass/tenderness b/l
• Ext:  **No calf tenderness b/l**; +1 DTR b/l
APLS AND PREGNANCY

You tell your patient you’d like to consider testing her for APLS. She asks how this condition affects pregnancy. What will you discuss with her?

• **Fetal and recurrent pregnancy loss**
  • Most occurring at >10 weeks EGA

• **Preeclampsia**
  • APLS is associated with 11-17% of cases
  • Strongest in severe preterm cases (<34 weeks EGA)

• **IUGR**
  • Affects 15-30% of patients with APLS
  • Conflicting evidence regarding this link
What are the pathogenesis of poor pregnancy outcomes attributed to APLS?

**Early Pregnancy**
- aPL (Antiphospholipid antibody)
- Thrombotic & Inflammatory Changes
- Spiral artery development
- X • Placenta
- • Trophoblast apoptosis

**Late Pregnancy**
- Placental perfusion
- Delivery of nutrients
- Oxygenation
- High-velocity, high-pressure blood flow
EVALUATION – PATIENT SELECTION

What are the clinical criteria for a diagnosis of APLS?

- Any history of unexplained vascular thromboembolism
  OR
- Pregnancy morbidity
  - >1 pregnancy loss at EGA >10 weeks
    - Normal fetal morphology by direct exam or U/S
  - >1 premature birth at EGA <34th week of gestation
    - Associated with PEC+SF or Eclampsia
    - Associated with placental insufficiency
  - >3 unexplained consecutive SABs at EGA <10 weeks
    - Excluding maternal anatomic/hormonal abnormalities and maternal chromosomal causes
What are the lab criteria for diagnosis of APLS?

- **Lupus anticoagulant**
  - ≥2 (+) at least 12 weeks apart
  - Before anticoagulation therapy

- **Anticardiolipin antibody** (IgG or IgM)
  - ≥2 (+) at least 12 weeks apart
  - Medium or high titer (>40GPL or MPL)

- **Anti-B2-glycoprotein I** (IgG or IgM)
  - ≥2 (+) at least 12 weeks apart
  - Titer >99%ile

Any one of these is sufficient for diagnosis, but a triple-positive status carries a worse prognosis!
PERINATAL MANAGEMENT

What are the recommendations for management of APLS patients in the perinatal period?

• History of thrombotic event + aPL
  • Antepartum: Prophylactic anticoagulation
    Possible addition of low-dose aspirin
  • Postpartum: Prophylactic anticoagulation for 6 weeks
    Possible addition of low-dose aspirin

• History of pregnancy morbidity + aPL (No thrombotic event)
  • Antepartum: Prophylactic anticoagulation
    Possible addition of low-dose aspirin
  • Postpartum: Prophylactic anticoagulation for 6 weeks
    Possible addition of low-dose aspirin
ANTEPARTUM SURVEILLANCE

The patient’s labs are consistent with a diagnosis of APLS. What are the recommendations regarding antenatal surveillance for her pregnancy?

• Insufficient data to support or refute a specific practice

• Serial U/S and 3rd trimester antenatal testing recommended by experts
LONG-TERM CONSIDERATIONS

What will be important considerations after this patient completes her pregnancy?

• Risks
  • Thrombosis
  • Stroke
  • SLE

• Contraception
  • Avoid estrogen-containing contraceptives

• Referral to experts
  • Internist
  • Hematologist
  • Rheumatologist
Black and Hispanic women with lupus have disproportionately higher rates of pregnancy complications compared to white women with lupus.

More Black and Latinx women entered pregnancy with:
- Chronic hypertension
- Chronic renal failure
- Pneumonia
- Acute renal failure
- Low socioeconomic status
- Public (vs private) insurance

Black and Latinx women had higher than expected rates of preeclampsia, preterm labor, and fetal growth restriction**

Given the higher odds of complications, delivery hospitalizations for black and Hispanic women with lupus were more costly.

**After adjustment for predictors of pregnancy outcomes and racial differences in non-lupus pregnancy.
BBonAPLSprenatal

Description: Antiphospholipid syndrome prenatal counseling and management

Given this patient’s diagnosis of APLS, patient was counseled on the effects of APLS on pregnancy including recurrent pregnancy loss (most occurring at >10 weeks EGA), preeclampsia, and IUGR. The patient was also advised to avoid estrogen containing contraceptives after pregnancy. *** Given that this is a new diagnosis, patient was provided with referrals to an internist, hematologist and rheumatologist.

*** Given patient’s history of a thrombotic event with concurrent APLS diagnosis, the patient was advised of the need for prophylactic anticoagulation +/- low dose aspirin in the antepartum period and prophylactic anticoagulation for 6 weeks post partum.

*** Given patient’s history of pregnancy morbidity (pregnancy loss >10 weeks/recurrent loss <10 weeks) with concurrent APLS diagnosis (without a thrombotic event), the patient was advised of the need for prophylactic anticoagulation +/- low dose aspirin in the antepartum period through 6 weeks postpartum.
# CODING AND BILLING

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<tr>
<th>Condition</th>
<th>Code</th>
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<tr>
<td>Antiphospholipid syndrome</td>
<td>D68.61</td>
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<tr>
<td>History of recurrent pregnancy loss</td>
<td>O26.20</td>
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<tr>
<td>History of preeclampsia</td>
<td>Z87.59</td>
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</tbody>
</table>


• Bates SM, Greer IA, Middeldorp S, Veenstra DL, Prabulos AM, Vandrkv PO, American College of Chest Physicians
