"Unraveling the Clotting Mystery: A Case of Recurrent Thrombosis in a Young Female with Antiphospholipid Syndrome"

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ABSTRACT: Antiphospholipid Syndrome (APS) is an autoimmune disorder characterized by recurrent venous or arterial thrombosis, pregnancy morbidity, and the presence of antiphospholipid antibodies. It predominantly affects young adults and requires lifelong anticoagulation to prevent complications. This case report highlights a 24-year-old female presenting with recurrent thrombotic events, leading to the diagnosis of APS.

Case Scenario: A 24-year-old female presented to the emergency department with sudden onset left leg swelling and pain for the past three days. She had a history of deep vein thrombosis (DVT) at the age of 21 and a previous ischemic stroke at 23. There was no history of smoking, oral contraceptive use, or known genetic thrombophilia. Her family history was negative for thrombotic events or autoimmune diseases.

Clinical Examination:

- Vital signs: Blood pressure 118/76 mmHg, heart rate 80 bpm, respiratory rate 16/min, temperature 36.9°C
- Left lower limb: Swelling with erythema, positive Homans' sign
- Neurological examination: Normal with no focal deficits

Investigations:

- **Complete blood count:** Normal hemoglobin and platelet levels
- **Coagulation profile:** INR 1.0, aPTT mildly prolonged
- **Doppler ultrasound:** Acute deep vein thrombosis in the left popliteal and femoral veins
- **MRI Brain (previous stroke episode):** Ischemic infarct in the right MCA territory
- **Antiphospholipid Antibody Panel:**
  - Lupus anticoagulant: Positive
  - Anti-cardiolipin IgG: Elevated
  - Beta-2 glycoprotein 1 IgG: Elevated (confirmed on repeat testing after 12 weeks)
- **Autoimmune workup:** ANA negative, dsDNA negative

Diagnosis: Based on the history of recurrent thrombosis and persistently positive antiphospholipid antibodies, the patient was diagnosed with primary Antiphospholipid Syndrome (APS).

Management:

1. **Acute Phase:**
   - Low molecular weight heparin (LMWH) bridging to warfarin therapy with target INR of 2-3
   - Pain management and limb elevation for DVT

2. **Long-term Anticoagulation:**
   - Warfarin was started and INR monitoring was done regularly and patient was discharged with INR of 2.1

3. **Lifestyle Modifications:**
    - Avoidance of estrogen-containing contraceptives
    - Regular physical activity and hydration
    - Patient education on recognizing signs of thrombotic events
4. **Follow-Up Plan:**
    - Regular INR monitoring
    - Annual assessment for additional autoimmune disorders
    - Consideration of low-dose aspirin if arterial thrombosis risk increases

Discussion: This case highlights the challenges of managing APS in young patients with recurrent thrombotic events. APS remains a significant cause of morbidity in young adults, requiring careful long-term anticoagulation to prevent life-threatening complications.

Given the relapsing nature of the disease, patient compliance with anticoagulation therapy and lifestyle modifications is crucial. The role of DOACs in APS is still under investigation, and warfarin remains the standard therapy for high-risk patients.

Conclusion: This case underscores the importance of early recognition of APS in young patients presenting with unexplained thrombotic events.

A multidisciplinary approach, including rheumatology and hematology consultation, is essential to optimizing long-term management and preventing further complications.

References:

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