

31- Retiform Purpura

Background:

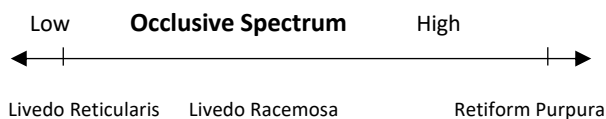
- Due to **complete blockage** of **dermal & sub-Q vessels** → **skin infarction** → **hemorrhage**
- **Clinical sign** hinting toward an **underlying medical condition**

PEARL: Important to remember that retiform purpura is a clinical sign, **NOT** the diagnosis!

- **Differential Diagnosis:** Think **"ADVICE"**
 - o **Anti-phospholipid syndrome**
 - o **Drugs**
 - Heparin & coumadin
 - o **Vasculitis or Vasculopathies**
 - o **Infections**
 - Meningococemia (*N.meningitides*)
 - Ecthyma gangrenosum (*Pseudomonas*)
 - Necrotizing fasciitis (Group A Strep or *Clostridium*)
 - Angioinvasive fungi (*Aspergillus*)
 - Disseminated strongyloidiasis
 - Brown recluse spider bites
 - o **Calciphylaxis or Cocaine tainted w/ levamisole**
 - o **Emboli (cholesterol or fat)**

Clinical Presentation:

- Pt present acutely/very sick in hospital
- Purpura that are **angulated** in shape
 - o Sometimes referred to as **"branching purpura"**
 - o **Hot Neon Pink** → **dark black-purple** in color
 - o **Tender** to touch
 - o Occurs anywhere on body but favors **dependent areas (e.g. lower legs)**
 - o Associated w/ hemorrhagic bullae or ulcers w/in distribution



Livedo Reticularis/Livedo Racemosa

- Due to vasospasm, vascular wall inflammation, or early obstruction

Clinical Presentation:

- **Erythema** in a **completely-connected netlike pattern**, usually on the **extremities**
 - o **Livedo Racemosa:** Similar appearance to livedo reticularis **w/out complete netlike connection**

Diagnosis:

- **H&P:**
 - o Are lesions inflamed or palpable?
 - Inflammatory Retiform Purpura, leaning toward vasculitis
 - o Distributed Symmetrically on UE & LE?
 - DIC
 - o Focused on the fatty areas (e.g thighs or lower abdomen)?
 - Calciphylaxis or coumadin necrosis
 - o Located on cooler areas (e.g. ears or digits)?
 - Cryoglobulinemia or levamisole-tainted cocaine
 - o Atrophie blanche (white, angulated scarred plaque w/ surrounding inflammation on LE) present?
 - Anti-phospholipid ab syndrome
 - o Recent heart cath?
 - Cholesterol Emboli
 - o Elderly pt w/ recent broken hip?
 - Fat emboli
- **Labs:**
 - o CBC w/ diff, CMP, Coagulation Profile, Sed Rate, CRP, UA, Drug Tox Screen
- **Biopsy:** Very Important!
 - o Excisional vs double-punch
 - o 1) Center of lesion & 2) Edge of lesion

Treatment:

- **Anti-phospholipid ab syndrome**
 - o Anticoagulation
- **Drugs**
 - o Heparin Necrosis = Stop Heparin + alternative anticoagulant (e.g. argatroban)
 - o Coumadin Necrosis = Stop Coumadin + alternative anticoagulation + Vitamin K or Fresh Frozen Plasma
- **Vasculitis**
 - o Systemic anti-inflammatory medications (e.g. prednisone) or steroid-sparing agent (e.g. methotrexate)
- **Vasculopathy**
 - o Consult Hematology
- **Infectious**
 - o Bacteria: antibiotics
 - o Fungal: anti-fungals
 - o Parasite: anthelmintics
 - o Brown recluse: supportive + wound care
- **Calciphylaxis**
 - o IV sodium thiosulfate + correction of serum calcium, phosphate, parathyroid hormone levels
- **Cocaine**
 - o Stop drug use
- **Emboli**
 - o Cholesterol: Supportive CV measures + surgical intervention
 - o Fat: Repair long bone fx +/- IVC filter or corticosteroids