

# Polyarteritis Nodosa (PAN)

Clinical Features, Investigations &  
Treatment

# Introduction

Necrotizing Vasculitis  
of Medium-sized arteries



Aneurysm & Thrombosis



Infarction of affected organ  
&  
Severe systemic inflammation

- Association: Hepatitis B
- Male : Female = 2 : 1
- Age – 40 – 50 years

## Pathology

Fibrinoid Necrosis, Inflammation & Vessel Occlusion

## Pearl

Granulomatous inflammation, if present, suggest  
other diagnoses

# Clinical Features

- **Systemic:** Fever, myalgia, arthralgia and weight loss
- **Skin:** Palpable purpura, 'punched out' ulceration, nodules, infarction and livedo reticularis.
- **Renal:** Main cause of death.
  - Severe hypertension and/or renal impairment
  - Glomerulonephritis is rare in PAN
- **Neurology:** Arteritis of the vasa nervorum in 70% - Symmetrical sensory & motor neuropathy
- **Cardiac:** Angina/MI, Cardiac failure
- **GI:** Pain abdomen, Perforation, Malabsorption
- **GU:** Orchitis

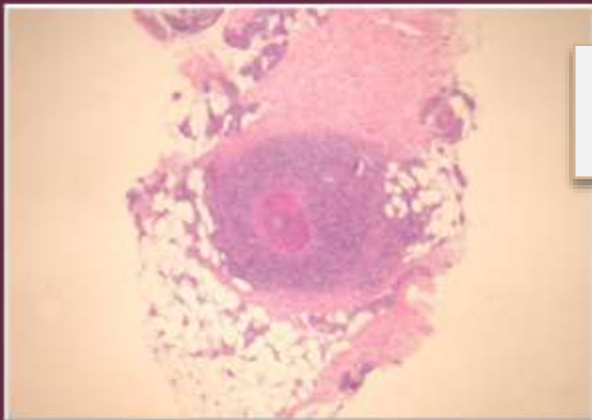
## Clinical Pearl

PAN usually spare lungs

# Investigations

## Angiography

- Conventional or Magnetic Resonance (MRA)
- Mesenteric, Hepatic or Renal System
- Multiple aneurysms and smooth narrowing of arteries



## Biopsy – Renal or affected organ

- **CBC** – Anemia, Leucocytosis – Eosinophilia in 30%
- **ESR & CRP** – Raised
- **ANCA** – Negative
- **Hepatitis-B serology**

# Treatment

- **BP control**
- **Corticosteroids**
- **Steroid sparing agents**
  - Added in organ-threatening or acute severe disease
  - High-dose glucocorticoids and intravenous cyclophosphamide
  - Maintenance Therapy - Lower-dose Glucocorticoids & Azathioprine / Methotrexate / Mycophenolate mofetil (MMF)
- **Hepatitis B treatment** - After initial treatment with steroids

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