Giant Cell Arteritis / Temporal arteritis.

- Most Common Vasculitis in elderly adults
- > 50 y.
- Chronic Inflammatory disorder of large to small sized arteries that principally affects arteries in the head.

Arteries involved

1. superficial temporal {most Commonly affected}
2. vertebral
3. opthalmic → sudden & permanent blindness.
4. Aorta.
   ↓
   giant cell aortitis

Pathogenesis

→ T cell mediated immune response against vessel wall Ag.

→ leading to proinflammatory cytokine (TNF especially) production

→ Anti-endothelial cell & Anti-smooth muscle cell Antibodies is present in serum of patients,

* polymyalgia Rheumatica.

{ girdle → bending, standing up}.

- combing hair.

Morphology

→ temporal artery → thickened, nodular, tender segment of vessel.

- segmental process with focally distributed lesions with intervening normal artery segments
- affected segments shows Intimal thickening with lead to ↓ vessel diameter.
- classical lesions shows
  ↓
  medical granulomatous Inflammation centred on the Internal elastic lamina.
  ↓
  with Internal elastic lamina fragmentation.
  ↓
  with infiltration of T cells (CD4+ > CD8+) and macrophages
- multinucleated giant cells are seen in 75%.

Clinical features

- are before 50 years
- Ocular symptoms - 50%.
  ↓
  diplopia to Complete loss of vision
  → most feared Complication
- adequate biopsy → atleast 1 cm.
- general : fever, malaise, fatigue, weight loss

{most common Symptom} focal pain / temporal headache, unilateral throbbing temporal headache

→ pain most intense along course of sup. temporal artery.

* most specific Symptom : Jaw claudication.

ie, pain in masseter while eating

Takayasu Arteritis

- Granulomatous vasculitis affecting ↓ medium to large arteries (mainly)

↓

Characterized by

↓

- ocular disturbances and weaking of pulse in upper extremities

↓

{ also called pulseless disease }

→ there is fibrous thickening of aortic arch and great vessels with severe luminal narrowing.

→ most commonly involved vessel

↓

Subclavian vessel.

→ other vessels involved

→ arch of aorta & great vessels
→ pulmonary artery
→ Coronary artery
→ renal artery

Morphology

Gross

- Thickening of Intima.
  +
- media Attenuation { due to granuloma & inflammation }
  +
- fibrosis of adventitia
- lumen - narrowed.

microscopy

- destruction and fibrosis of media → with mononuclear cell infiltration & Giant cell.

Clinical feature

- fatigue, weight loss, fever.
- weaker pulse in UL.

Aneurysms & Dissections

- Aneurysm is abnormal, localized, irreversible dilatation of any part of cardiovascular system.

ie, arteries, left ventricle etc ...

↓

left ventricular aneurysm.

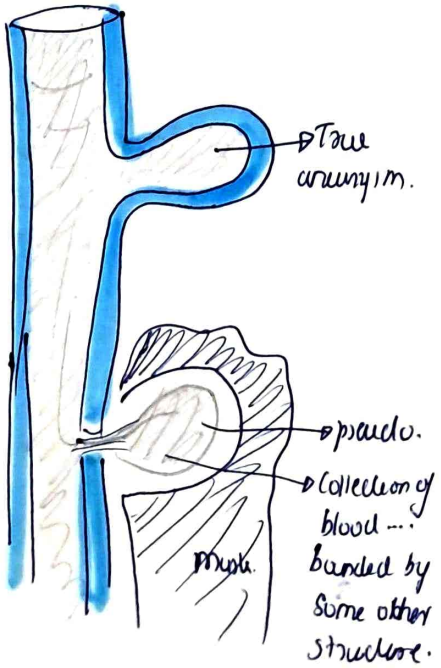
→ not only in arteries.

→ occurs when there is significant weakening in wall

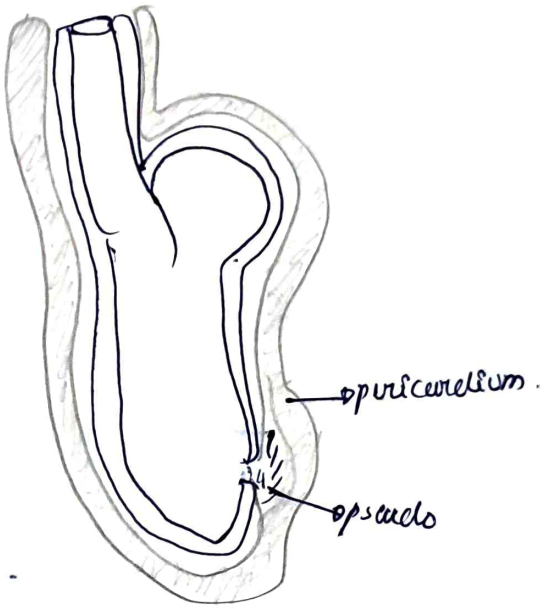
Aneurysms

- True aneurysm
- false aneurysm.
- Dissection.

True aneurysm



pseudo. - seen in LV



Dissections

- due to weakening

↓

Intimal tear.

↓

jet of blood dissects wall.

↓

{actually a dissecting hematoma} rather than aneurysm.

General Complications of Aneurysm

- Inside Aneurysm

↓

stagnant blood

↓

thrombus — complication ①

↓

can also emboli — comp — ②

- Stagnation & thrombus

↓

Bacteria housing & proliferation

↓

↑ damage - rupture - (3)

(4) Compression on neighbouring structures.