

History in Nephrology

True Legends never die – its legacy lives on.!

Takayasu Arteritis
Dr. Mikito Takayasu

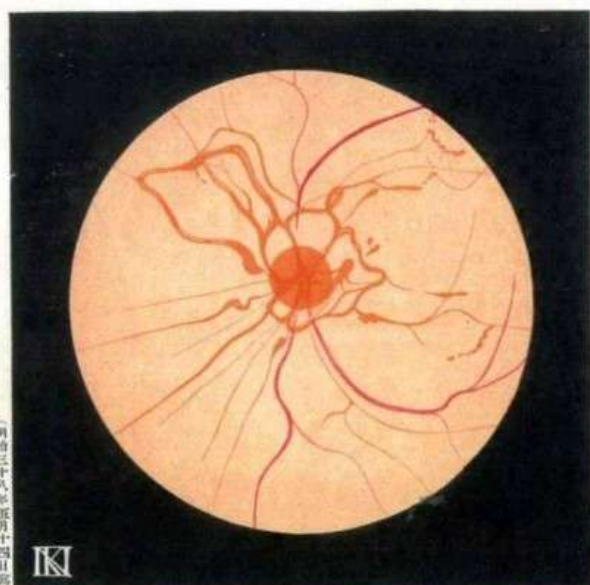


Dr. Mikito Takayasu

Was a Japanese Ophthalmologist

- Described the characteristic retinal vascular changes of Takayasu arteritis in 1908
- Presented the case at the 12th Annual Meeting of the Japan Ophthalmological Society

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圖像倒底眼右 (女眞二廿) 某 林

Takayasu Retinopathy

The principal finding is peculiar arteriovenous anastomosis around the optic disc

Appearance of the retinal vessels

Typical features include

- Unequal or absent peripheral pulses,
- Difference in blood pressure between arms,
- Arterial bruits,
- Limb claudication,
- Hypertension – often due to renal artery stenosis – and constitutional symptoms such as
 - Fever, fatigue and weight loss

DISCOVERED BY

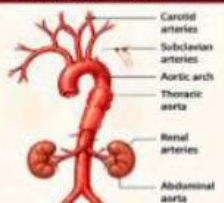
MIKITO TAKAYASU
(1860–1938)
In 1908, described the characteristic retinal vascular changes in a young woman.

TAKAYASU ARTERITIS

A Chronic Large Vessel Vasculitis
"Pulseless Disease"

WHAT IS IT?

- Chronic granulomatous inflammation of large and medium-sized arteries.
- Affects aorta and its major branches.
- Predominantly young women (< 40 years).
- Relapsing–remitting course.

TYPICAL DISTRIBUTION

PATHOGENESIS

1. Granulomatous inflammation of arterial wall
2. Intimal thickening and fibrosis
3. Stenosis, occlusion or aneurysm formation

CLINICAL FEATURES

PULSELESS DISEASE

Blood pressure difference between arms.
Unequal or diminished pulses in upper limbs.

VASCULAR MANIFESTATIONS

- Limb claudication
- Bruits over subclavian or carotid arteries
- Dizziness, syncope

HYPERTENSION (Renal artery stenosis)

Severe or resistant hypertension common.

SYSTEMIC SYMPTOMS

- Fever
- Fatigue
- Weight loss
- Myalgia
- Night sweats

OCULAR FINDINGS (Takayasu Retinopathy)

Peculiar wreath-like arteriovenous anastomosis around the optic disc.

DIAGNOSIS

- Clinical suspicion in a young patient with absent/unequal pulses, BP difference and bruits.
- Elevated ESR / CRP
- Imaging studies
 - CT Angiography (CTA)
 - MR Angiography (MRA)
 - PET-CTshow wall thickening, stenosis, occlusion, or aneurysm.



TREATMENT

1. Glucocorticoids (initial therapy)
2. Steroid-sparing immunosuppressive agents
 - Methotrexate
 - Azathioprine
 - Mycophenolate mofetil
 - Cyclophosphamide
3. Biologic therapy (in refractory cases)
 - Tocilizumab (anti-IL-6)
 - Adalimumab (anti-TNF)
4. Control hypertension and manage complications

KEY POINTS

- Young women (< 40 years) most commonly affected
- Absent/unequal pulses and BP difference are key clues
- Renal artery stenosis → hypertension and CKD
- Characteristic retinal changes (1908) – described by Mikito Takayasu
- Early diagnosis and treatment prevent irreversible complications

Think Takayasu arteritis in a young patient with systemic symptoms, vascular bruits, unequal pulses or BP, and hypertension.