Tip of the iceberg-Acute Miocardial infarction in a young female patient

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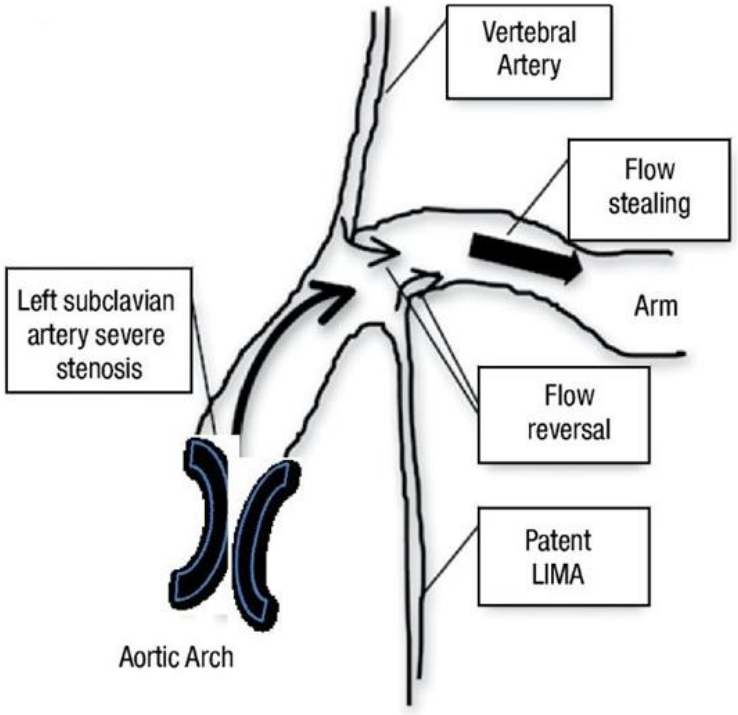
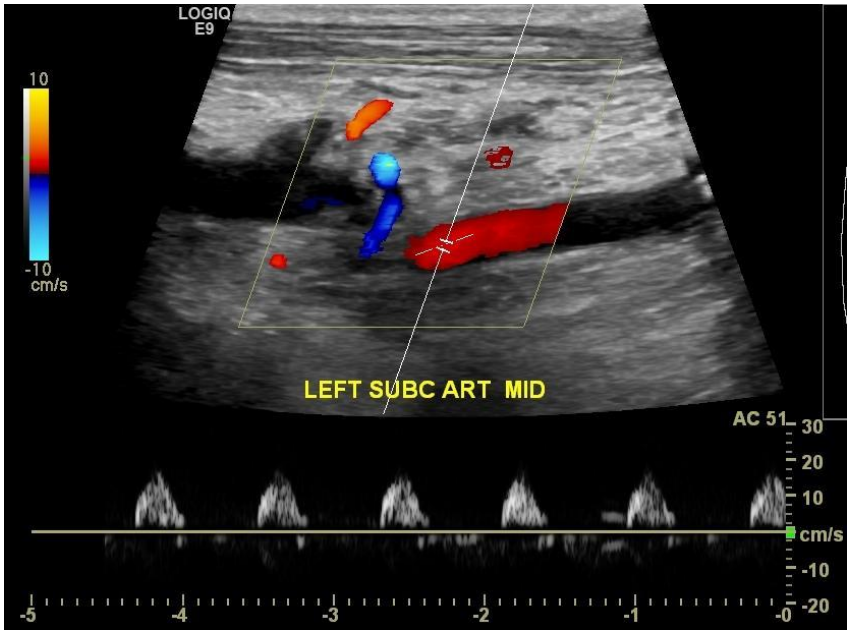
- 43 year-old female
- Without any traditional cardiovascular risk factors
- Medical hisotory – an episode of acute myocardial infarction (MI) occured 5 years prior to the admission to our clinic (age 38)
    - critical left-main coronary artery and left anterior descending (LAD) coronary artery sub-occlusion
        - CABG: saphenous vein graft for the left main coronary artery and left internal mammary artery (LIMA) bypass to the LAD
    - **Second MI** - ten moths later LIMA – LAD bypas non-functional
        - New CABG: saphenous vein graft graft with no postoperative complications

- **5 years later, GP notices a left subclavian artery systolic bruit...**
- **In our clinic, the physical examination revealed:**
  - absence of left radial pulse
  - decreased left dorsalis pedis artery pulse
  - systolic blood pressure difference between arms was 40mmHg.
  - arterial systolic bruits
    - grade IV - left carotid artery
    - grade III - left subclavian artery
    - grade II - abdominal aorta, right renal and femoral arteries.

- **Blood samples point out increased inflammation markers.**

- **Doppler ultrasound confirms:**
  - left subclavian steal syndrome





  - left external carotid artery stenosis
  - right renal artery stenosis with secondary arterial hypertension

Takayasu's arteritis ACR classification criteria

Criterion	Definition
Age of patient at disease onset in years	Development of symptoms or findings related to Takayasu's arteritis at age <40 years
Claudication of extremities	Development and worsening of fatigue and discomfort in muscles of one or more extremity while in use, especially the upper extremities
Decreased brachial artery pulse	Decreased pulsation of one or both brachial arteries
Blood pressure difference >10 mmHg	Difference of >10 mmHg in systolic blood pressure between arms
Bruit over subclavian arteries or aorta	Bruit audible on auscultation over one or both subclavian arteries or abdominal aorta
Arteriogram abnormality	Arteriographic narrowing or occlusion of the entire aorta, its primary branches, or large arteries in the proximal upper or lower extremities, not due to arteriosclerosis, fibromuscular dysplasia, or similar causes; changes are usually focal or segmental
Takayasu's arteritis is classified if at least three of the six criteria are present. The presence of three or more criteria yields a sensitivity of 90.5% and a specificity of 97.8%.	

Takayasu’s arteritis

- Takayasu arteritis is a rare, systemic, inflammatory large-vessel vasculitis of unknown etiology that most commonly affects women of childbearing age.

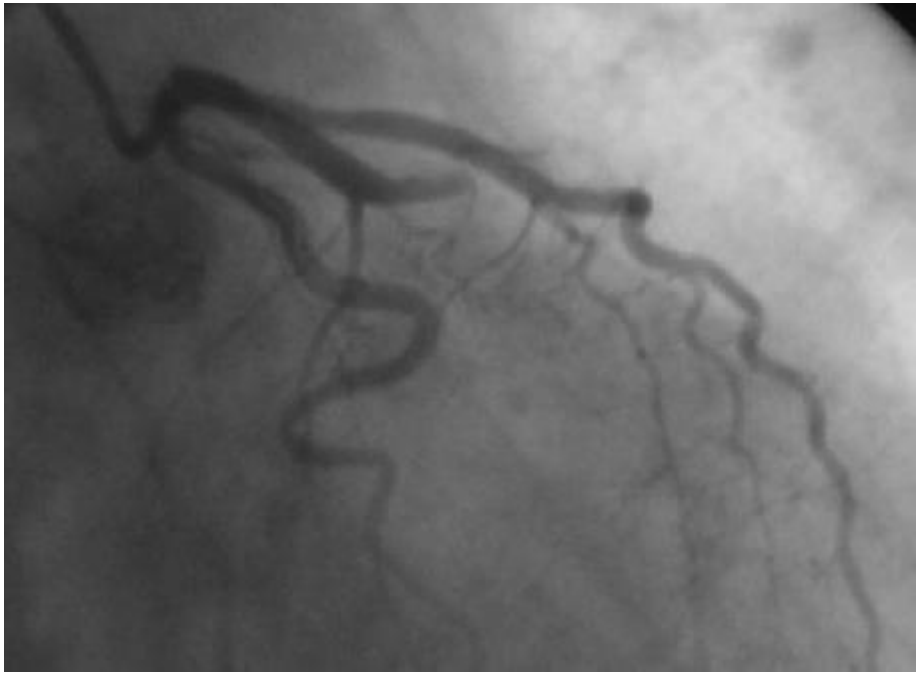
- It is defined as "granulomatous inflammation of the aorta and its major branches" by the Chapel Hill Consensus Conference on the Nomenclature of Systemic Vasculitis.

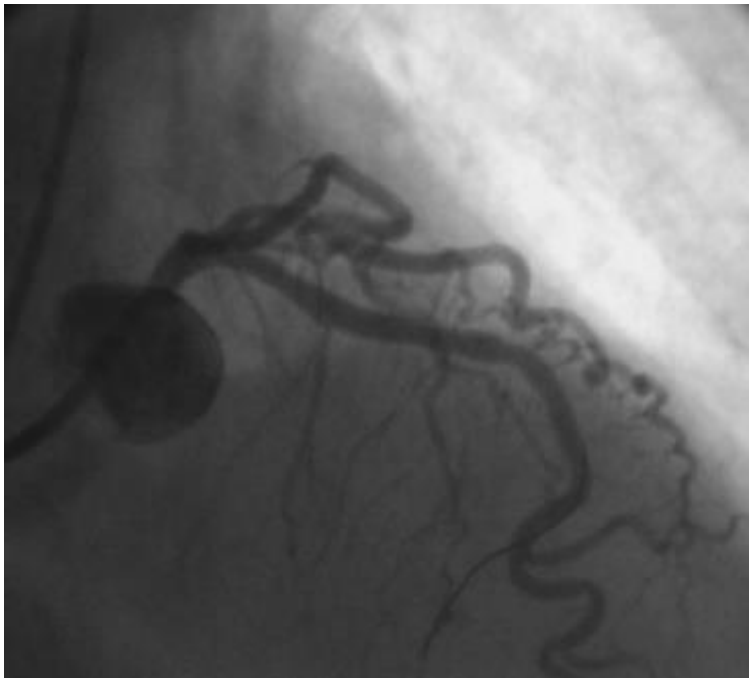
- **At this point the diagnosis of Takayasu arteritis was made and the patient was started on:**
  - Methilprednisolone (1mg/kg prednisone daily)
  - PPI treatement
  - Alphacalcidol
  - with further improvement of the mentioned clinical findings

- After two months of oral corticoid treatment the patient presented with:
    - Cortisone induced diabetes
    - Severe glucocorticoid-induced myopathy
    - Glucocorticoid-induced Cushing syndrome

- Corticoid doses were progressively diminished to 8mg oral metilprednisolone daily with the further remisson of both the myopathy and the diabetes.

- Four years later, in July 2015 the patient developed another acute MI. The coronarography revealed that the saphenous vein bypass for the left-main coronary artery stenosis in 2006 was nonfunctonal. Revascularisation was performed by desobstructing the saphenous vein by-pass using a 3/20 mm balloon.





- Both clinical and echographic findings were improved in future evaluations.

Learning points

- One of the particularities of this case is represented by the involvement of the coronary arteries, an uncommon clinical manifestation of Takayasu arteritis.

- Another particularity is represented by the severity of the complication following glucocorticoid treatment.

- One other aspect worth mentioning is the etiology of the last acute coronary syndrome given that the autoimmune disorder was in clinical remission. We considered that the myocardial infarction was due to the local by-pass hemodynamic parameters in a patient with long term glucocorticoid treatment.


"In all affairs it's a healthy thing now and then to hang a question mark on the things you have taken for granted."
Bertrand Russell
Thank you!