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# Clinical Presentation of Takayasu Arteritis

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**Abstract:** ***Takayasu Arteritis is a type of vasculitis that affects medium and large sized vessels. It can present with a variety of symptoms and signs and these subtle signs are ignored more often than not. The inflammatory process has a predilection against aorta and its main branches but involvement. Early diagnosis and initiation of treatment induction can prevent numerous unwarranted investigations to rule out local causes and unnecessary pain reliever induction. This is a case of a 42 year old female that came to the OPD with generalised body ache and pain in her left arm since 12 days. Thorough examination and specific investigations prevented the persistence of residual morbidity. Although the 5 year and 10 year survival rate of this disease is 69% and 36% respectively, early diagnosis can prevent deaths due to its complications. Patient was started on systemic steroids followed by oral immunosuppressant's on which she was discharged.***

**Keywords:** vasculitis morbidity

## 1. Case Presentation

A 42 year old female came to the OPD with a history of mild backache mostly in the lumbar region along with generalised body ache since 12 days. She also gave complaints of claudication pain in her left hand which was non-radiating. It increased on executing movements or keeping it in an overhead position since 12 days. This is relieved by keeping it hanging down next to her body and resting it. She had no history of fever, weight loss, varicosities, chest pain, dyspnoea, limb oedema, syncope or vertigo, parasthesias, urinary or fecal incontinence. She had no significant history of any illnesses in the past. Her menstrual cycles are normal.

The patient was admitted in the general medicine ward. On examination the patient the patient was moderately built, conscious oriented. She was afebrile, pale (grade 3). The pulses on her left brachial artery was low in volume. Her radial artery was 79 beats per minute, low volume, regular with no radioradial or radiofemoral delay. The rest of the pulses were normal in rate, volume and character. The blood pressure in her left brachial artery was 90/70 mm hg while the brachial was 130/84 mm Hg. She had an ejection systolic murmur on auscultation which was non radiating. She had no joint swelling, crepitus, contracture or any restriction to movement of any joint bilaterally.

On investigating further her haemoglobin was low at 6.4 with a leucocytosis of 14.5 with neutrophilic predominance. Her ESR (Erythrocyte sedimentation rate) was 100 mm/hour and CRP (C reactive protein) was 29 mg/L. On radioimaging, her arterial Doppler left upper limb showed intimal thickening of the subclavian artery with low velocity and biphasic spectral waveform. A MDCT Aortogram (Multidetector computed tomography) showed a long segment of the aorta for a distance of approximately 16.3 cm, maximum thickness of 7.3 mm. The above observations along with the investigations and radio imaging confirmed the diagnosis of a large and medium vessel vasculitis most consistent with Takayasus arteritis (American College of Rheumatology).

She was started on intravenous methylprednisolone 500 mg for three days. Following this she was started on methotrexate 7.5 mg twice a week along with vitamin supplements of cholecalciferol and folic acid. After a 10 day period of observation she was discharged on methotrexate, muscle relaxants and asked to follow up after 2 weeks.

Following the first few doses of steroids she showed significant reduction in her arm pain and was able to mobilise herself with lesser difficulty. She was followed up after being started on immunosuppressant's and showed good maintenance of suppression of symptoms.

## 2. Discussion

Takayasu arteritis is a medium to large vessel vasculitis thatpresents with atypical features and usually picked up late after its onset. Several cases have reported multiple years after the first symptom and this delayed presentation place them at risk of developing end organ damage with a progressive course.

ACR (American College of rheumatology) criteria for Takayasu arteritis.

| Criteria | Definition |
|---|---|
| Age at disease onset in years | Development of symptoms or findings related to Takayasu arteritis at age <40 years |
| Claudication of extremities | Development and worsening of fatigue and discomfort in muscles of one or more extremities while in use, especially the upper extremities |
| Decreased brachial artery pulse | Decreased pulsation of one or both brachial arteries |
| Blood pressure difference >10 mm Hg | Difference of >10 mm Hg 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, fibro-muscular dysplasia, or similar causes: changes usually focal or segmental |

A multicentre retrospective study of approximately 318 patients diagnosed with Takayasu arteritis came to the conclusion that the factors associated with relapse of Takayasu arteritis were male sex, elevated C-reactive protein level, and carotidynia. And also that the progressive clinical course at diagnosis, thoracic aorta involvement, and retinopathy were identified as risk factors for vascular complications in the first 10 years of diagnosis. Such studies mandate not only an early intervention but a regular follow up for this vascular disorder.

**Disclosure:** None

## References

[1] AHA (American Heart Association)
[2] NCBI (National Centre for biotechnology Information)
[3] Firestein and Kelly textbook of Rheumatology