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Congestive Heart Failure as the First Presentation of Takayasu's Arteritis – A Rare Presentation

Katragadda Praveen Kumar*

Department of General Medicine, A J institute of Medical Sciences, Mangalore, India

***Corresponding author:** Katragadda Praveen Kumar
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Abstract **Case Report**

Takayasu's arteritis is an inflammatory disase often affecting the ascending aorta and aortic arch, causing obstruction of the aorta and its major arteries. Cardiac involvement especially acute heart failure at presentation is rarely seen [1] . Present case is a 45year old female patient who was brought to hospital with exertional dyspnoea and bilateral pitting pedal edema. During examination radial and brachial pulses were found to be not palabable and raised a suspicion followed by CT aortogram which suggested the diagnosis of takaysu's arteritis. She was symptomatically treated for cardiac failure along with corticosteroids, improved clinically and is been on followup eversince.

Keywords: Congestive heart failure, takayasu's arteritis.

INTRODUCTION

Takayasu's arteritis is an inflammatory disease often affecting the ascending aorta and aortic arch, causing obstruction of the aorta and its major arteries. The pathology is a panarteritis characterized by mononuclear cells and occasionally giant cells, with marked intimal hyperplasia, medial and adventitial thickening and in the chronic form, fibrotic occlusion. Cardiac involvement in Takayasu's arteritis is rare and seen in ~ 10% individuals. Atherosclerotic changes and fibrotic changes in aorta and its branches including subclavian, carotid can also be seen in few cases [2]

CASE REPORT

A 45 year old female, with no pre-existing co-morbidities presented with exertional dyspnea and bilateral pitting oedema since a month

Examination

Radial and brachial pulses in bilateral upper limbs were not palpable and blood pressure was recorded as 130/110mmHg. Apex beat was displaced laterally and downwards and was well sustained. Jugular venous pressure was elevated. Blood pressure in bilateral lower limbs was 200/100mmHg.

Investigations

CT aortogram was performed which showed pancardiomegaly, narrowing in the abdominal aorta and multiple intraluminal calcifications.

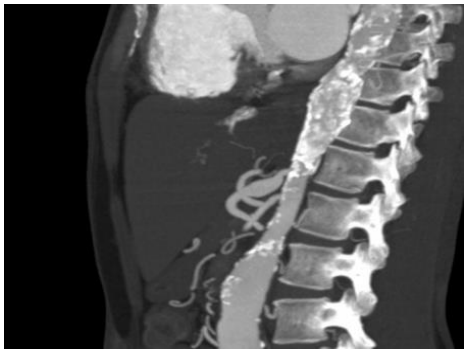

Fig-1: Image showing thoracoabdominal aortic involvement in computed tomography scan

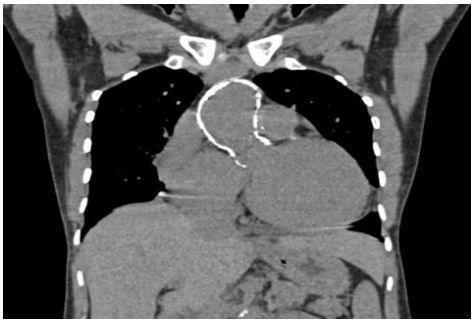

Fig-2: Image showing involvement of ascending aortic segment in computed tomography scan Management

As per ACR criteria [3], she was diagnosed to have Takayasu's arteritis and given supportive treatment with diuretics, ACE inhibitors, low dose corticosteroids following which her condition improved. Ethical commitee permission was taken to use the case details for academic and research purposes

DISCUSSION

Takayasu's arteritis is an inflammatory disase often affecting young and middle aged individuals and more common in female population [4]. The pathology is a panarteritis characterized by mononuclear cells and occasionally giant cells, with marked intimal hyperplasia, medial and adventitial thickening and in the chronic form fibrotic occlusion. Cardiac involvement in Takayasu's arteritis with acute heart failure is rare, and here ia a case who presented with exertional dyspnea and bilateral pitting oedema, Radial and brachial pulses in bilateral upper limbs not palpable and Apex beat was displaced laterally and downwards and was well sustained [5]. Jugular venous pressure was elevated. Investigations like CT aortogram was performed which showed pancardiomegaly, narrowing in the abdominal aorta and multiple intraluminal calcifications confirming the diagnosis. She was treated for heart failure symptoms, started on oral corticosteroids at a dose of 1mg/kg for 3 months duration [6] currently clinically better and on regular followup.

CONCLUSION

The prevalence of cardiac involvement in Takayasu's arteritis in the form of congestive cardiac failure is rare and should be suspected on priority basis when clinical examination gives a clue. corticosteroids may be used in conservative management. Surgical management may be indicated in cases with recurrent stenosis. Heart failure to be treated and followed up regularly

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