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TAKAYASU'S ARTERITIS: A CASE STUDY

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A B S T R A C T

Takayasu's arteritis (tah-kah-YAH-sooz ahr-tuh-RIE-tis) is an uncommon kind of vasculitis (blood vessel inflammation), which inflammation damages large and medium sized arteries. The arteries most commonly affected are the branches of aorta, including blood vessels that supply blood to arms and travel through the neck to provide blood to the brain. The aorta itself is also often affected. Less commonly, arteries that provide blood to heart, intestine, kidney and legs may be involved. The illness can cause arteries to become constricted or obstructed, as well as weakening arterial walls that can bulge (aneurysm) and rupture. It can also cause arm or chest discomfort, high blood pressure, and heart failure or stroke in the long run. Women are considerably more likely than males to have Takayasu's arteritis. The condition most commonly affects young adults, although it can also affect youngsters and those in their middle years. TAK is discovered on Angiograms or X-ray diagnostics that examine the arteries. Angiograms indicate constriction of major arteries in TAK patients. Arteries that are narrowed or obstructed can cause a variety of issues, ranging from minor to severe. [1]

Keywords*: Takayasu's arteritis, Inflammation, Blood, Arteries*

1. INTRODUCTION

Takayasu's arteritis (TA) , also known as aortic arch syndrome , nonspecific aorto arteritis and pulseless disease, is a form of large vessel granulomatous vasculitis with massive intimal fibrosis and vascular narrowing and most commonly affecting young or middle aged women of Asian descent, though anyone can be affected. It mainly affects the aorta and its branches, as well as pulmonary arteries. Females are about 8-9 times more likely to be affected than males.

Those with the disease often notice symptoms between 15 and 30years of age. Takayasu's arteritis sign and symptoms include in "inflammatory phase" malaise, fever, night sweats, weight loss, joint pain, fatigue and fainting, anemia, elevated ESR or C- reactive protein may be present in secondary phase i.e "pulseless phase" is characterized by arms or legs claudication, renal artery stenosis causing hypertension. In later stages aneurysm may occur.

Diagnosis is based on demonstration of vascular lesions in large and middle-sized vessels on angiography, CT scan, magnetic resonance angiography or FDG PET. The 'macroni sign' with ultra sound is highly suggestive of the condition. Contrast angiography has been gold standard. The characteristic finding is presence of "skip lesions" where stenosis or aneurysm alternate with normal vessel.

People with Takayasu's arteritis respond to steroids such as prednisone. Promising results are achieved with mycophenolate and tocilizumab. Patients who does not respond to steroids may require revascularization, either via vascular bypass or angioplasty and stenting [4]

2. CASE PRESENTATION

In April 2022, A 38 year old female house wife visited IGMC, Shimla cardiology department with the complaints of headache moderate to severe intensity, she was experiencing these symptoms from last 3 months. On physically examining the patient it was found that bruits were present in right carotid and left femoral artery. With unequal pulses of both the arms. Blood pressure measured from right arm (180/92mmhg) and left arm (120/84 mmhg).

Past Medical History

Cholecystectomy done 5 years back. Caesarean section done in 2019 and 2012.

Past Medication History

She was taking over the counter medication (tablet stop ache) when she experienced headache, since 3 months.

General Examination

Weight: 60 kg

Height: 5 foot 2 inches

BMI: 24.2 kg/m2

Physical activity: daily work routine home, while performing household tasks her left arm use to get tired.

Special investigations

X-ray C-spine , ECG, 2-D echo , FBS, RFT, LFT, TSH.

Treatment

Tab. Omnacortil 40mg OD, Tab. Pantop 40mg BBF , Tab Methotrexate 7.5 mg weekly, Tab Folic acid 5mg OD. Tab Telmisartan 20mg OD.

Interventions

CART procedure was done.

Patient was advised to avoid mobilisation and take adequate amount of rest.

Care Plan

Eat a healthy diet – take more fresh fruits and vegetables, whole grains, lean meats and fish, while limiting salt sugar and alcohol.[2]

Exercise regularly, it can help prevent bone loss, high blood pressure and diabetes. It improves mood and sense of well-being.

Avoid all tobacco products, to reduce the risk of injuring blood vessels and tissues even more.

Outcome

After the CART procedure the patient's headache was relieved.

Patient was advised to take the prescribed medications.

Patient was advised to visit hospital after 1month for follow up.

3. DISCUSSION

Takayasu's arteritis (pulseless disease) also called TAK[3], is of unknown etiology. It commonly affects female (85%). It is a panarteritis involving aortic arch and its branches – subclavian artery is involved in 85% of cases. Clinical features include- fever, body ache, malaise, arthralgia etc. upper limb claudication. Absence of peripheral pulses, hypertension is comman in 50% of cases due to renal artery involvement. Bruit may be herd over subclavian artery. Visual disturbances can occur due to involvement of renal arteries- late blindness can occur. If we talk about pathophysiology it is a panartetritis, involving all layers of elastic arteries later thrombosis and stenosis can occur. Doctors find TAK on angiograms, other investigations include C-reactive protein, Duplex Doppler ultrasound, MR angiography. Treatment of TAK almost always include glucocorticoids (prednisone and others). Which help reduce inflammation. Very early cases are benefitted with tablet prednisolone 30-50mg /day. Cyclophosphamide to be tried when other measures fail. Vascular reconstruction – difficult. [5]

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