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Case report on takayasu arteritis

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Abstract

Takayasu Arteritis (TA) is a systematic disease affecting women of reproductive Age. Similarly to other systemic autoimmune diseases. Takayasu arteritis is a chronic systemic vasculitis that primarily affects the aorta and its major branches. It is a rare disease of unknown etiology. Takayasu Arteritis can be found in all ethnic groups but is most prevalent in Asia and middle East countries it affect both women and men with the ratio of 10:1 mostly a young woman of child bearing age. Takayasu Arteritis is characterized by the artery wall thickening eventually resulting in artery stenosis, obliteration or aneurysm formation. The inflammation and ischemic of the organs supplied by the involved arteries often leads to clinical manifestations such asymmetrical pulsation and intermittent claudication of the extremities intractable hypertension. Takayasu Arteritis is diagnosed based on the signs and symptoms from the organ ischemic changes and characteristic imaging findings. Takayasu Arteritis could result in High rates of maternal hypertension (5.3% To 100%) and pre clampsia (2.7% To 75.9%) and they are associated with poor pregnancy outcomes. In yearly clinical practice most of the takayasu patient. Where diagnose at the age of 20 - 40 years so it has effects on the pregnancy when it is not taken seriously, however in recent years women at reproductive age has been highly concealed in enhance awareness of early diagnostic and early treatment. More than 20% of Takayasu Arteritis patient are diagnosed before the age of 25 years. So it impacts of pregnancy in gradual been paid attention.

Keywords: Takayasu arteritis, autoimmune disease

Introduction

Case scenario

A 28 years old women, Mrs. Sathya Priya. With a obstetrical score of G₂A₁ was admitted in Tirunelveli medical College and hospital on 22.07.2024 during her 30 weeks of pregnancy with the chief complaint of night sweating, fatigue, muscle aches, weakness of lower extremities. Her abdominal size is appropriate to the gestational age in the past 3 months. Her last menstrual period (LMP) was 16.12.2023 and the expected date of delivery (EDD) has been on 23.9.2024 the gestational week was 30 weeks + 1 day.

On examination

General condition is fair hydrated, pulse rate is 86 beats/ minutes and blood pressure is 180/110 mmHg. On abdominal examination the uterus fundal height is 28 cm and the gestation weeks through finger breath method is 30 weeks of gestation. The fetal heart rate is 150 beats per minute with good fetal movement and normal intrauterine growth.

Investigation

Done during admission such as CBC, LFT, TSH, HIV, HBsAg, VDRL the findings are normal. On 26.07.2024 MRI was taken to the mother. The result showed that chronic occlusion of infra renal short segment stenosis of superior mesenteric artery (SMA). Between renal artery stenosis. The serial ultra sound scans revealed normal.

Treatment

Given to the mother is Tab. labetalol 100mg, Tab. Aspirin 150mg, Tab. Clopidogrel 75mg, Inj. Dexamethasone 6mg IM. Tab vitamin B complex and folic acid supplement OD. The Mother is also advised to go for ophthalmologic and cardiac examination and daily fetal kick counts is monitored.

On 28.08.2024 at the 35th week of gestation week. The mother was went under an Emergency cesarean section. The mother delivered a healthy baby girl,

weighting of 2.200gm and APGAR score of 8/10 at 5mins. Her postpartum period was uneventful. The mother was counseled about breastfeeding, one month following her delivery, the mother's blood pressure were not in the range of normal.

Literature review

According to Yunjiao Yang et.al (2022) [5] Takayasu's Arteritis (TA) is a rare chronic inflammatory, progressive, idiopathic, arteriopathy afflicting young women of reproductive age group. The maternal and fetal complications are associated with TAK pregnancies in patient with TAK should be considered as high risk and mothers and their features should be closely monitored for their health conditions by rheumatologists and obstetricians induction of TAK active disease to remission treatment of renal artery stenosis before pregnancy and use of anti-platelet agents are of almost importance to improve the pregnancy outcomes of TAK patients.

Clinical presentation on Takayasu Arteritis

Definition: Takayasu's Arteritis (TAK) is a rare type of vasculitis a group of disorders that cause inflammation of the blood vessels of the inflammation damages the large artery that carries blood from your heart to the rest of your body (Aorta) and its main branches.

Classification

Type I: Involves only the branches of the aortic arch (Brachiocephalic trunk left common carotid artery and left sub clavier artery).

Type II: Affects the ascending aorta aortic arch and its branches.

Type III: Involves the thoracic and abdominal aorta, including the renal arteries.

Type IV: involves the entire aorta and its branches.

Pathophysiology

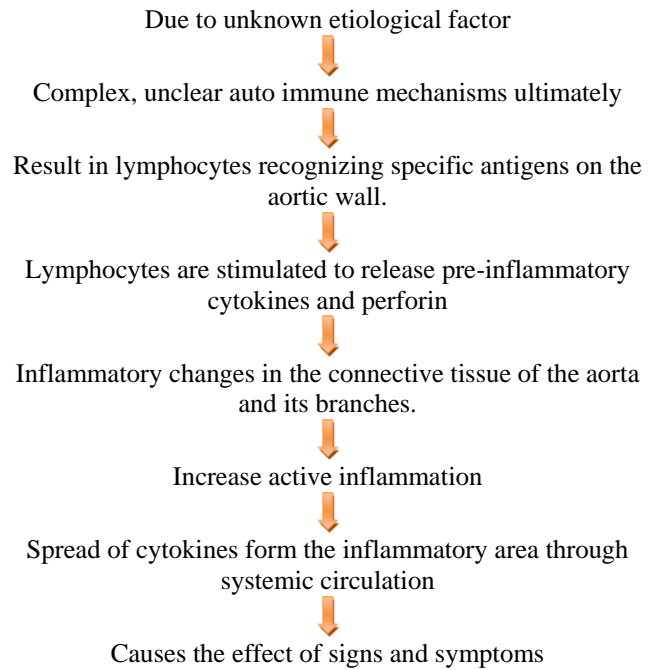


Table 1: Etiology

Book picture	Mother picture
Unknown cause	Unknown cause
Immunogenic factors	-

Table 2: Clinical manifestation

Book picture	Mother picture
Common symptoms	
Fever	-
Fatigue	Fatigue
Wight loss	-
Muscle aches	Muscle aches
Joint pain	Joint pain
Malaise	Malaise
Difficulty sleeping	-
Tachycardia	-
Coldness on numbness in hands and legs	-
Weak or absent pulse	Weak or absent pulse
Blurred vision	-
Chest pain shortness of breath	-
Trouble thinking	-
Pregnancy symptoms	
Hypertension	Hypertension
Aortic regurgitation	Aortic regurgitation
Hemoptysis	-
Peripheral edema	Peripheral edema
Frequent urination	Frequent urination
Nigh sweating	Nigh sweating
Anemia	-

Table 3: Diagnosis evaluation

Book picture	Mother picture
CBC	Decreased platelet count
HIV, HBSAG, VDRL	Negative
RFT	Increase Creatinine level
LFT	Normal
TSTH	Normal
Random Blood Sugar	Hypoglycemic
ECG	Normal sinus rhythm
MRI	Chronic occlusion of infra renal short segment stenosis present
Abdomen Ultra Sound	Normal fetal growth

Table 4: Treatment

Book picture	Mother picture
Medial management	
Tab. Prednisone	Tab. Prednisone 100mg BD
Tab. Methylprednisolone	-
Tab. Methotrenate	-
Tab. Clopidogrel	Tab. Clopidogrel 75mg OD
Tab. Aspirin	Tab. Aspirin 150mg BD
Tab. Labetalol	Tab. Labetalol 100mg BD
Injection denametasone	Injection Denametasone BD
Tab. Telmisartan	-
Tab. BCT	Tab. BCT OD
Tab. Folic Acid	Tab. Folic Acid OD
Surgical management	
Angioplasty	-
By tenting	-
Bypass surgery	-

Nursing consideration

Decreased cardiac output related to back flow of blood into the left ventricle as evidenced by peripheral edema.

- Monitoring the vital signs.
- Encourage adequate bed rest.
- Administering medications as per the physician order.

Ineffective tissue perfusion related to stenosis as evidenced by cyanosis

- Encourage range of motion exercise.
- Inspect for signs of edema, ulcer or gangrene.
- Encourage healthy lifestyle modification.

Other nursing diagnosis

- Activity intolerance related to fatigue as evidenced by inability to do daily activity.
- Knowledge deficit related to disease condition as evidenced by patient asking frequent doubts.
- Risk for infection related to immunosuppressive therapy.

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