



## CASE STUDY

### PREGNANCY COMPLICATED BY TAKAYASU ARTERITIS

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#### ARTICLE INFO

##### Article History:

Received 16<sup>th</sup> January, 2017  
Received in revised form  
21<sup>st</sup> February, 2017  
Accepted 07<sup>th</sup> March, 2017  
Published online 30<sup>th</sup> April, 2017

##### Key words:

Artery stenosis,  
Aortitis,  
Takayasu arteritis.

#### ABSTRACT

This paper presents a care of takayasu arteritis, a rare large vessel inflammatory disease complicating pregnancy. Takayasu arteritis is a chronic granulomatous inflammation of aorta and its major branches which can manifest as isolated, atypical and/or catastrophic disease. It can involve any/or all major organs. It has been reported from all parts of world but more prevalent in Asians / Indian descent. In Indians, abdominal involvement is common when compared to aorta. This was a case of Bilateral renal artery stenosis, aortitis with aortic regurgitation grade III and left ventricular/atrial dilatation. Pregnancy in case of Takayasu arteritis may be uneventful in milder forms of disease but may be catastrophic because of relapse which is common in pregnancy (or) worsening of disease because of physiological changes in pregnancy.

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Citation: Dr. C. C. Nandhihi, Dr. Kavitha and Dr. M. N. Swathika, 2017. "Pregnancy complicated by Takayasu arteritis", *International Journal of Current Research*, 9, (04), 49340-49341.

#### INTRODUCTION

This paper presents a care of takayasu arteritis, a rare large vessel inflammatory disease complicating pregnancy. Takayasu arteritis is a chronic granulomatous inflammation of aorta and its major branches which can manifest as isolated, atypical and/or catastrophic disease. It can involve any/or all major organs. It has been reported from all parts of world but more prevalent in Asians / Indian descent. In Indians, abdominal involvement is common when compared to aorta. This was a case of Bilateral renal artery stenosis, aortitis with aortic regurgitation grade III and left ventricular/atrial dilatation. Pregnancy in case of Takayasu arteritis may be uneventful in milder forms of disease but may be catastrophic because of relapse which is common in pregnancy (or) worsening of disease because of physiological changes in pregnancy.

#### Case report

Our case was a 29 year old G5P3L3A4 who was referred to us from a primary health center as a case of progressive dyspnea at 37 weeks of gestation. She was a known case of Takayasu arteritis diagnosed 2 years back but she discontinued treatment after this conception and had not revealed this medical condition at the primary health centre. On initial evaluation she was anaemic with NYHA class III dyspnea and elevated blood

pressure (PRE ECLAMPSIA RULED OUT). Her echocardiogram showed left atrial and left ventricular and global hypokinesia, aortic regurgitation grade III and mild mitral regurgitation. Her ejection fraction was 38%. Her ultrasound abdomen revealed bilateral renal artery stenosis. Doppler studies showed decreased flow in carotid, brachial and ulnar arteries. Obstetric ultrasonogram revealed a IUGR fetus showing a disparity of three weeks with a normal doppler parameters. She was treated with T.Frusimide 20mg bd. T. amlodipine 2.5 mg od. T .digoxin 0.25mg ½ od, syr.potassium chloride 5ml tds. Her anaemia was corrected with 2 units packed cell transfusion. She was started on prednisolone 5mg od. She went into spontaneous labour after 4 days of admission and stabilization. Her labour progressed well with vigilant observation of both mother and fetus. Epidural analgesia was given. Infective endocarditis prophaxis given. She delivered an alive boy baby of 2 kg by labour naturalis. Postnatally she was closely observed in ICU for 48 hours. She was discharged after 20 days after cardiac stabilization with initiation of progesterone only pill for contraception. She was educated about the nature of the disease and the need to continue medication to prevent complications.

#### Conclusion

As most of our antenatal mothers particularly those belonging to low socio economic class turn up to the hospital for any kind of treatment only during her antenatal period. We want to emphasize the importance of thorough history taking and

general examination in all antenatal cases to reveal any existing underlying medical disorders. Takayasu arteritis is a chronic inflammatory disease of aorta and its major branches otherwise called aortic arch syndrome, young female arteritis, occlusive thromboathropathy, etc. Etiology is suggested to be genetic [HLA BW52, B21, DR2], Infective [TB, herpes virus]. Pathologically there is nonspecific granulomatous inflammation of vessels with wall thickening, fibrosis, stenosis, thrombus formation, leading to ischemia. A more acute inflammation destroys the arterial media giving rise to aneurysm formation. Typically it has a triphasic course. [i] early active phase [ii] chronic ischaemic phase [iii] burnt out quiescent phase [fibrosis]

Most common site is left subclavian artery (93%), aorta (65%). Other sites are carotids, renal, pulmonary, vertebral. Most common type of lesion is stenotic. Vascular involvement produces claudication, bruit, hypertention, unequal arm blood pressure, carotidya in typical cases. Constitutional symptoms are common, CNS/musculoskeletal symptoms occur according to vessel involvement. Cardiac involvement occurs in one third of the cases typically of aortic root dilatation with aortic regurgitation progressing to left ventricular dilatation to congestive cardiac failure. With angina, assymetic pulses, bloodpressure difference greater than 30mmof Hg between both the arms, hypertention. This hypertention typically results from renovascular compromise.

Group	Clinical features
I	Uncomplicated disease with or without pulmonary artery involvement
IIA	Mild to moderate single complication together with uncomplicated disease.
IIB	Severe single complication together with uncomplicated disease.
III	Two or more single complication together with uncomplicated disease.

Maternal complications in pregnancies complicated with takayasu arteritis

1. Superimposed pre-eclamsia (60%)
2. Congestivecardiac failure (5%)
3. Cerebral haemorrhage (5%)
4. Progressive renal impairment.

Fetalcomplications

1. Growth retardation
2. IUD, still birth

Relapse is common during pregnancy managed by increasing the steroids. Uncontrolled hypertension during pregnancy leads to abortion, aortic dissection, CCF, ARF, maternal death. All known cases of Takayasu arteritis should be counselled to conceive when this blood pressure and the disease is stable.

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