

Multidisciplinary Approach in Management of Takayasu Arteritis in Pregnancy –A Case Report:

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I. Background

Takayasu's arteritis (TA), also known as “young female arteritis,” is a rare and chronic inflammatory disease of the large vessels. The disease mainly affects women of reproductive age and Asian origin. Pregnant patients are at increased risk of cardiovascular complications, including hypertension and congestive heart failure, which may jeopardize both maternal and fetal outcomes. We present a case of pregnant woman with Takayasu arteritis whose disease and fetal complications during pregnancy was challenging and managed well by our multidisciplinary team.

II. Case:

A 37 years old Somalian lady with BMI of 32, primigravida spontaneous conception referred to our hospital at 26 weeks of gestation. She was a known case of takayasu arteritis (TA) since the age of 10 years with essential hypertension and chronic kidney disease due to involvement of renal vessels. In addition to the involvement of left subclavian artery, left vertebral artery, superior mesenteric, bilateral renal arteries and narrowing of descending aorta for which she had stenting. Regarding her surgical history, she had craniotomy in 2015 for CSF leakage after head trauma, cholecystectomy in 2007 and appendisectomy in 2011. At 26 weeks, she was admitted with upper respiratory infection and raised blood pressure. She was on Methyldopa 500 mg tid and labetalol 800 mg daily divided doses, Prednisolone 10 mg daily and low dose aspirin. She was managed as inpatient by multidisciplinary team involving obstetricians, maternal medicine, fetal medicine and anesthetist. At 27 weeks, BP control was the most challenging. She developed superimposed preeclampsia with increasing liver enzymes added amlodipine 10 mg daily (as nifedipine and hydralazine was not tolerated by her) and needed magnesium sulfate and monitoring in HDU, then conservatively managed as inpatient for 5-6 weeks, fetus was monitored by regular growth scans in fetal medicine unit and computerized CTG daily, initially growth was normal and at 31 weeks fetus was found to be SGA with normal Doppler's and liquor, at 32 weeks her liver enzymes deteriorated further AST (53 u/l) ALT (128 u/L) creatinine rising (98- 117). She was reviewed by multidisciplinary team and planned for delivery by cesarean section, delivered a male baby weighing 1200 gm < 5th centile in stable condition. Baby was cared in NICU due to prematurity. Mother was stable and her BP was well controlled on amlodipine and labetalol and biochemical parameters improved and discharged home on day six with follow up appointment.

TA narrowing of branches of aorta



Investigations –had lscs on 29/3

	24/2	4/3	10/3	24/3	27/3	28/3	31/3
creatinine	98	104	108	114	119		117
urea	9.0	9.4	5.7	8.7	8.7		6.1
AST U/L	24	17	26	52	62	74	68
ALT	56	36	42	99	129	154	139
E GFR	39 ml/min LOW		HGB	9.7-10.6 gm/dl	Uric acid	453-530 mmol/l	

III. Discussion

The management of TA is a multidisciplinary approach with the involvement of obstetricians, anesthesiologists, Obstetric Medicine physicians, FMU, cardiologists, rheumatologists, and neonatologists. Ultimately, the aims encompass the control of inflammation, prevention, and treatment of complications like hypertension and occlusive or stenotic lesions. Preconception counseling is essential. Routine antenatal visits, monitoring of BP renal function, cardiac status, and pre-eclampsia screening is vital. In addition to that, pregnancy does not interfere with the disease progression of TA. However, BP control is of paramount importance as any increase might rupture an aneurysm, induce hypotension, and lead to cerebral ischemia in the mother. Moreover, peripheral BP monitoring may not be accurate and might complicate the treatment of hypertension in these patients. As it happened in our case her blood pressure was different in four limbs and average was taken. Uncontrolled hypertension during pregnancy has been associated with abortion, stillbirths, aortic dissection, cardiac and renal insufficiency, stroke, and maternal death.

IV. Conclusion

Multidisciplinary care for pregnant patients with TA has proven crucial to reach optimized and favorable maternal and fetal/neonatal outcomes.

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