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LETTER TO THE EDITOR

## Takayasu's arteritis in pregnancy and obstetric anesthesia

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### Letter to the Editor

Takayasu's arteritis or disease is a rare, idiopathic, chronic inflammatory disease which causes narrowing, occlusion or aneurysms of large arterial blood vessels (1). Almost 80% of patients are women in their childbearing years. The optimal anesthetic management of parturients with Takayasu's arteritis is controversial. In fear of hypotension and the subsequent need for vasopressors, avoidance of regional anesthesia has been recommended by many authors (2). We, herein, report on an uneventful use of epidural anesthesia for an elective cesarean section in a parturient with moderate-to-severe Takayasu's arteritis.

A 30-year-old gravid 2 para 1 female with Takayasu's arteritis complicated by moderate concentric left ventricular hypertrophy and moderate-to-severe aortic dilatation with insufficiency was admitted to the Labor and Delivery suite at term for elective cesarean section. Complete 2-D, spectral and color Doppler studies were conducted prior to delivery. No regional wall motion abnormalities were identified. Ejection fraction was 60%. Perioperative anesthesia was provided with slow and incremental boluses of 2% lidocaine via an epidural catheter placed at L3-L4 interspace. No complications were reported. Right radial artery catheter was used for intraoperative blood pressure monitoring.

Takayasu's arteritis preferentially affects large arteries such as the aorta and its branches and hence its alternative names of pulseless disease, occlusive thromboaropathy and aortic arch syndrome. Although most commonly found in oriental women, it occurs sporadically throughout the world. The impact of pregnancy on Takayasu's arteritis is unclear. The increased intravascular volume seen during pregnancy may impair circulation and exacerbate aortic regurgitation, hypertension, and

lead to congestive heart failure. The best anesthetic management for pregnant women with Takayasu's arteritis is still a subject of controversy. Peripartum anesthetic management should include optimization of intravascular volume and appropriate monitoring, which may be difficult in the pulseless Takayasu's arteritis patient. A multidisciplinary peripartum and/or perioperative approach is recommended to optimize the parturient's status and formulate a plan for delivery. Despite several case reports in the anesthetic literature documenting safety of neuraxial blocks in women with Takayasu's arteritis undergoing cesarean delivery, Yoshida et al. reported a sudden cardiac arrest in a parturient with Takayasu's arteritis which occurred following induction of epidural anesthesia for elective cesarean section (3). Immediate and successful resuscitation (defibrillation for pulseless ventricular tachycardia) resulted in excellent maternal and neonatal outcome.

### Conclusion

Our report confirms the emerging consensus that regional anesthesia is a safe alternative to general anesthesia in parturients with Takayasu's arteritis. A slowly titrated regional anesthetic technique should be used to prevent hemodynamic instability.

**Declaration of interest:** The authors report no conflict of interest.

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