

Peripartum Management of a Parturient with a History of Truncus Arteriosus and Mechanical Aortic Valve on Warfarin

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Introduction

- Mechanical heart valves (MHVs) confer a high risk of thromboembolism and require lifelong anticoagulation
- Pregnancy further increases hypercoagulability, making meticulous anticoagulation essential to prevent valve thrombosis and stroke while balancing the risks of postpartum hemorrhage and neuraxial anesthesia (1)



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Case Presentation

Overview: 35-year-old G2P0010 with a repaired truncus arteriosus, prior mechanical aortic valve replacement on warfarin, prior bioprosthetic pulmonary valve replacement, single vessel coronary artery disease, and embolic stroke after one day off of warfarin for embryo transfer presents for delivery planning

Pre-conception

- Counseled by adult congenital cardiology
- Transitioned from warfarin to enoxaparin

First Trimester

- Established care with maternal-fetal medicine (MFM) at our institution and near her home

Second Trimester

- Transitioned back to warfarin
- Multidisciplinary planning with MFM, cardiology, hematology, obstetric anesthesia

Intra-partum

- Admitted at 36 weeks
- Transitioned from warfarin to therapeutic heparin infusion
- Induced at 37 weeks with cervical ripening balloon
- Upon balloon expulsion, heparin stopped & oxytocin started
- 5 hours post-heparin, platelets and coags normal-> CSE placed
- Low dose SQH given x 2
- Had uncomplicated vaginal delivery

Post-partum

- Epidural removed 2 hours after delivery
- Transferred to cardiac care unit with L&D nursing and hemorrhage management equipment
- Therapeutic heparin resumed 6 hours post-delivery

Summary

Off therapeutic AC for 24 hours, achieved effective neuraxial analgesia experienced no adverse events

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Discussion & Key Points

- Pregnancy in patients with MHVs is associated with substantial maternal morbidity- up to 41% of patients experience severe morbidity (2)
- Safe vaginal delivery with neuraxial anesthesia is feasible with careful, multidisciplinary planning and coordinated anticoagulation management

References

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2. Lester W, et al. British Society for Haematology guideline for anticoagulant management of pregnant individuals with mechanical heart valves. Br J Haematol. 2023 Aug;202(3):465-478.