



## Bicuspid Aortic Valve with Aortopathy during pregnancy: coming soon to your L&D suite

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# INTRODUCTION

- Bicuspid aortic valve is the most common cardiac congenital anomaly with an incidence of 4.6/1000 live births and 33% have associated aortopathy
- The increased CV demands of pregnancy especially in the 3<sup>rd</sup> trimester and post-partum, put parturients at a higher risk for progression of valvular diseases as well as aortic dissection or rupture
- These patients need to be identified early in pregnancy and their care coordinated by an interdisciplinary team of physicians



# CASE



- 31 y/o G1PO at 37 weeks
  - Bicuspid Aortic Valve with Ascending Aortic Aneurysm measuring 4.7 cm
  - NYHA Class 1 functional status & intermediate risk for adverse cardiac events by CARPREGII and ZAHARA scoring<sup>1</sup>
  - Meds: 25mg Metoprolol daily
  - Cardiology discussion – cleared for vaginal delivery with assisted 2<sup>nd</sup> second stage, but patient opted for scheduled cesarean section
- C-section
  - Arterial line placed prior to CSE
  - Hemodynamic Goals: HR < 60, SBP < 130
  - Lasix 20mg during closure
  - No issues during c-section or post-partum periods



# DISCUSSION



- When is surgery indicated?
  - Symptomatic patient with an aortic aneurysm measuring >4.5cm
  - An asymptomatic patient with an aortic aneurysm measuring >5.0cm
  - Or if the aneurysm grows >0.5cm in a year<sup>2</sup>
- What about medical management?
  - Most patients are maintained on beta blockers to decrease both HR and BP to decrease the shear forces on the aneurysm
  - Following delivery, 20mg of Lasix was given in anticipation of auto-transfusion
- What is the role of the interdisciplinary team?
  - Careful monitoring of aneurysm progression with cardiology especially in the 3<sup>rd</sup> trimester
  - Cardiac surgery consultation
  - Timing and plan for delivery between OB/GYN and anesthesiology
  - Maintaining adequate follow up in the post-partum period