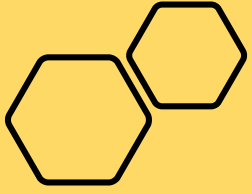




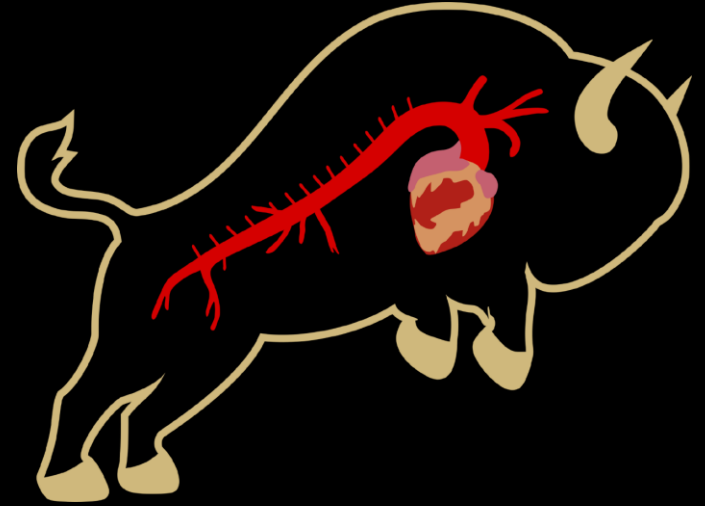
Temporal Trends in Aortic Valve Surgery: Preserving the Valve

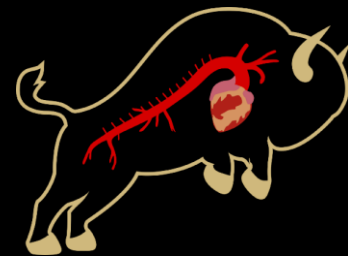
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No disclosures

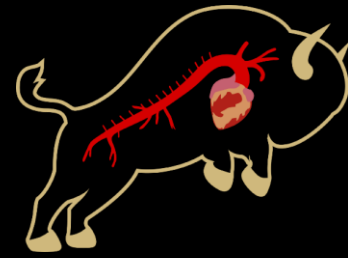




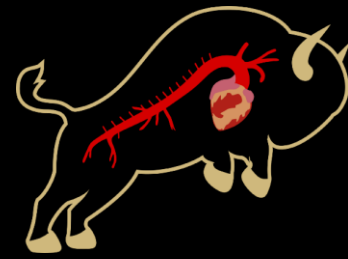
Introduction

- With approval of TAVR for low-risk patients, surgical aortic valve replacement (AVR) now primarily sees use in younger patients, particularly those with bicuspid disease
- Need for lifelong anticoagulation after AVR places a significant burden on patients with increased bleeding risk and cost
- Degeneration of valve, potential need for valve-in-valve TAVR also made more difficult
- Aortic valve repair has the potential to spare patients above issues

Aim

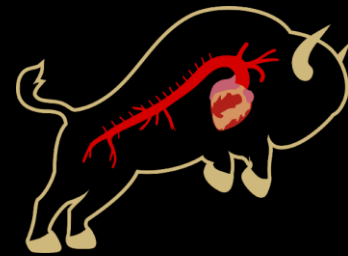


- Evaluate temporal trends of aortic valve repair versus AVR at our institution
- Evaluate temporal trends of valve-sparing root replacement (VSRR) versus non-valve sparing root replacement
- Determine trends in aortic valve repair such as use of ring annuloplasty



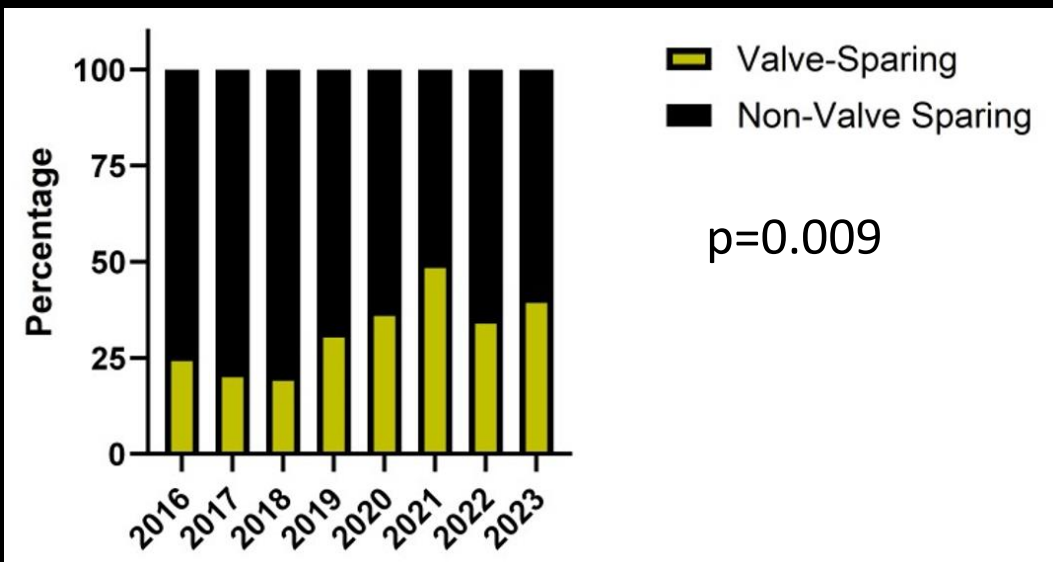
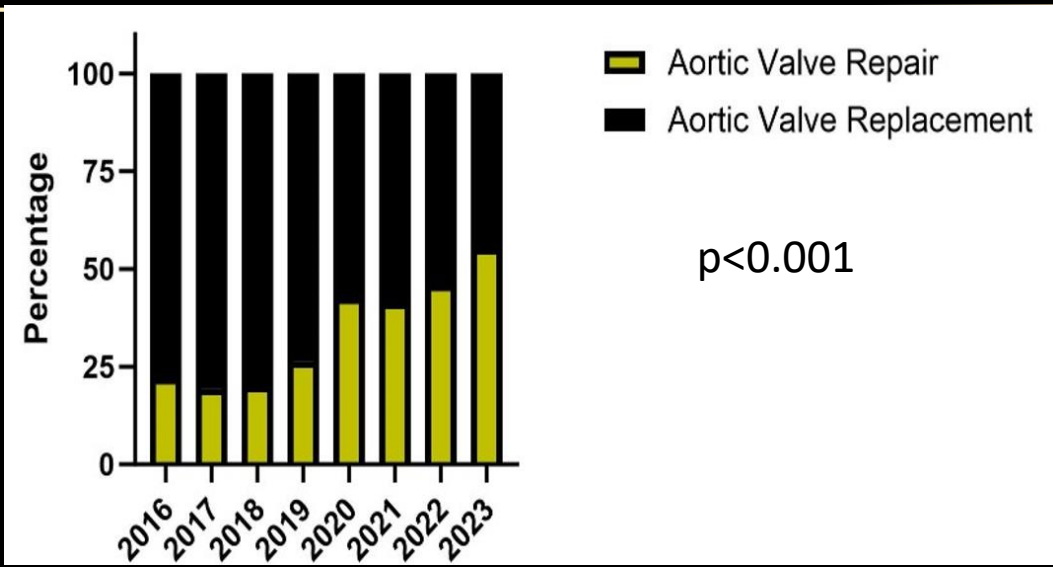
Methods

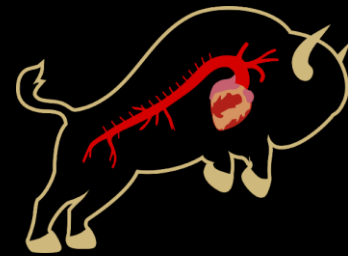
- A retrospective review of a single institution prospective database to evaluate patients from 2016-2023 undergoing an aortic valve intervention and any adjunctive root procedure
 - Analyze yearly trends in valve repair versus replacement
- Perform temporal analysis in aortic valve intervention for bicuspid aortic valve patients in 4-year cohorts (2016-2019, 2020-2023)
- Evaluated trends in usage of ring annuloplasty in above 4-year cohorts



Results

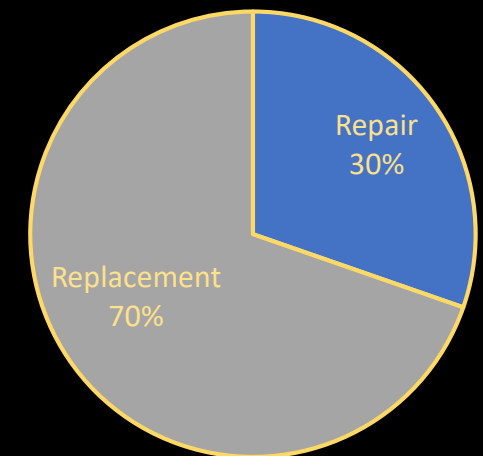
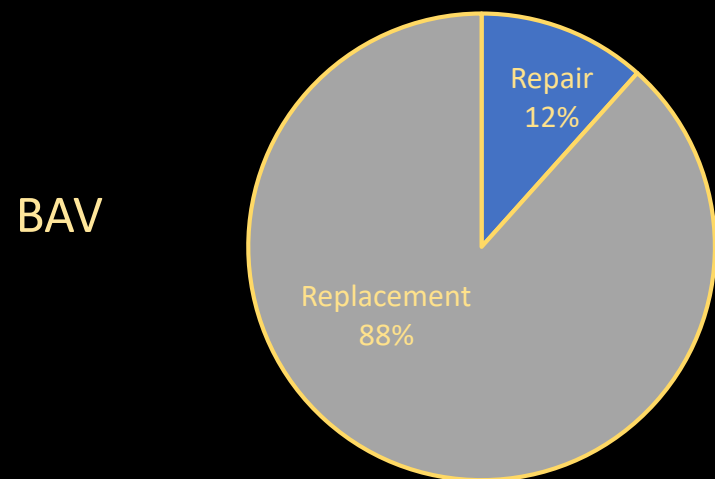
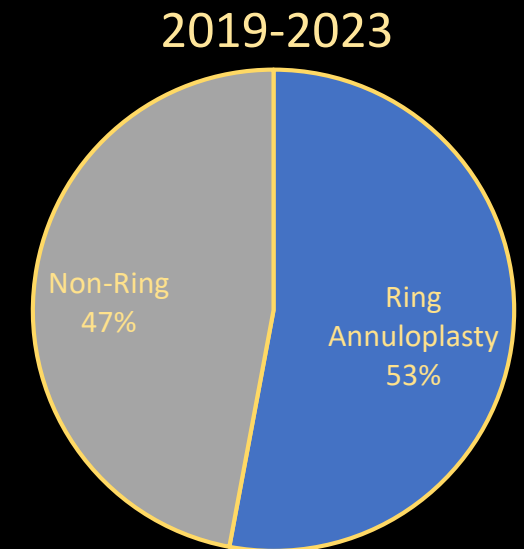
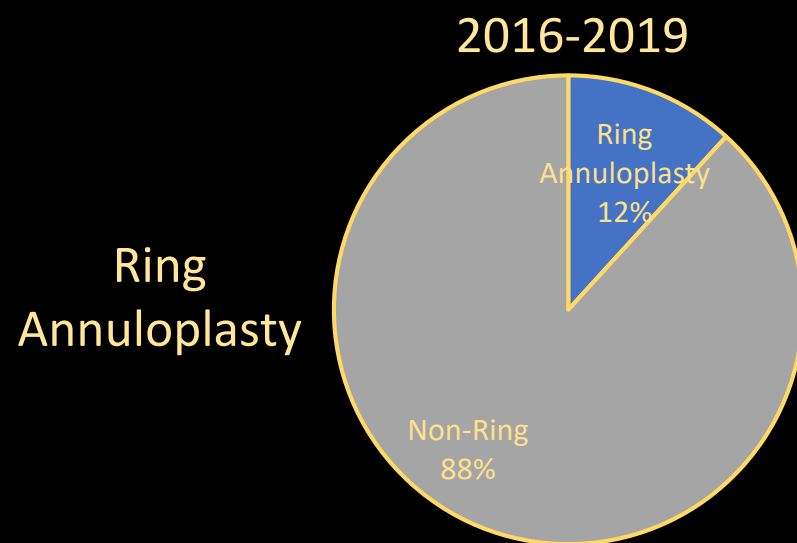
- In total, 529 patients underwent an aortic valve procedure
 - 183 (34.6%) repair
 - 346 (65.4%) replacement
 - 295 (55.8%) had an adjunctive root replacement
 - Prior to 2020, only 54 aortic valve repairs performed
- Annually, significant trend towards increasing repair and increasing VSRR

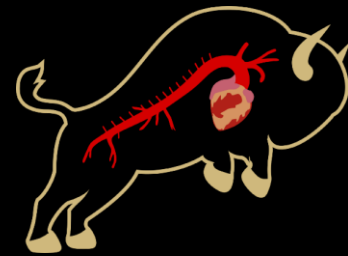




Results

- Regarding four-year trends:
 - Significant increase in usage of ring annuloplasty ($p < 0.001$)
 - Significant increase in aortic valve repairs for bicuspid aortic valve patients ($p = 0.027$)





Conclusions

- Trend towards increase in aortic valve preservation with more repairs and valve-sparing root procedures
- At least 50 aortic valve repairs required for a surgeon to gain comfort with performing routinely
- Performance of repair optimizes for TAVR if needed later in life
- We advocate for the performance of aortic valve repairs at experienced centers to prevent early valve replacement

Questions???

