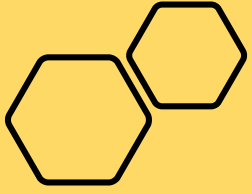


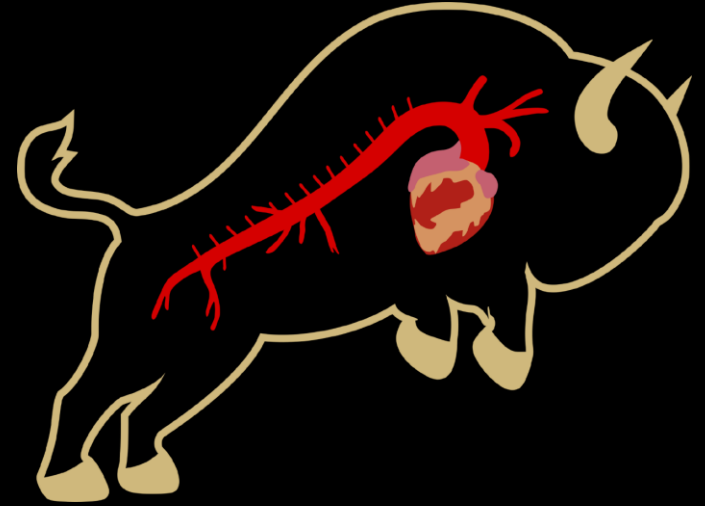
Aortic Root Replacement in Type A Aortic Dissection Is Protective From Distal Reintervention

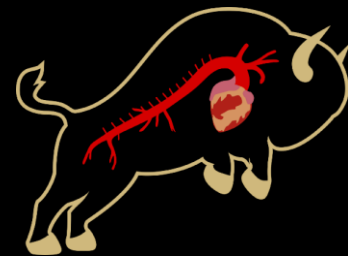
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(1), Muhammad Aftab (1), T. Brett Reece (1)

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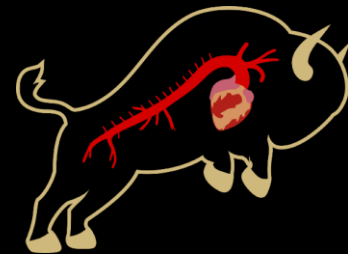
No disclosures





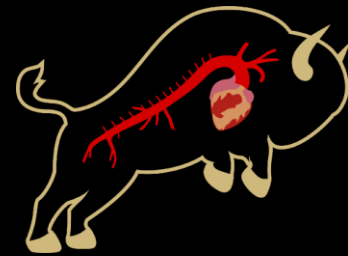
Introduction

- Acute type A dissection remains a devastating, life-limiting pathology
- Despite improvements in short-term morbidity and mortality, high risk of complications related to residual dissection, with up to 47% of patients requiring re-intervention
- Operative management of type A dissection is variable
 - Exemplified by treatment of aortic root, with option of conservation, or more aggressive replacement which may decrease likelihood of future replacement
- Unclear how root strategy impacts distal pathology



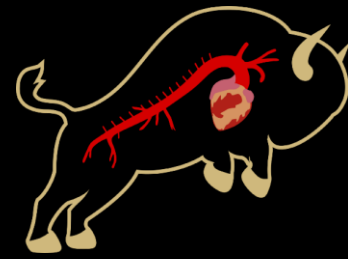
Aim

Evaluate how root management at index surgery for type A dissection impacts freedom from re-intervention, particularly reintervention distal to root



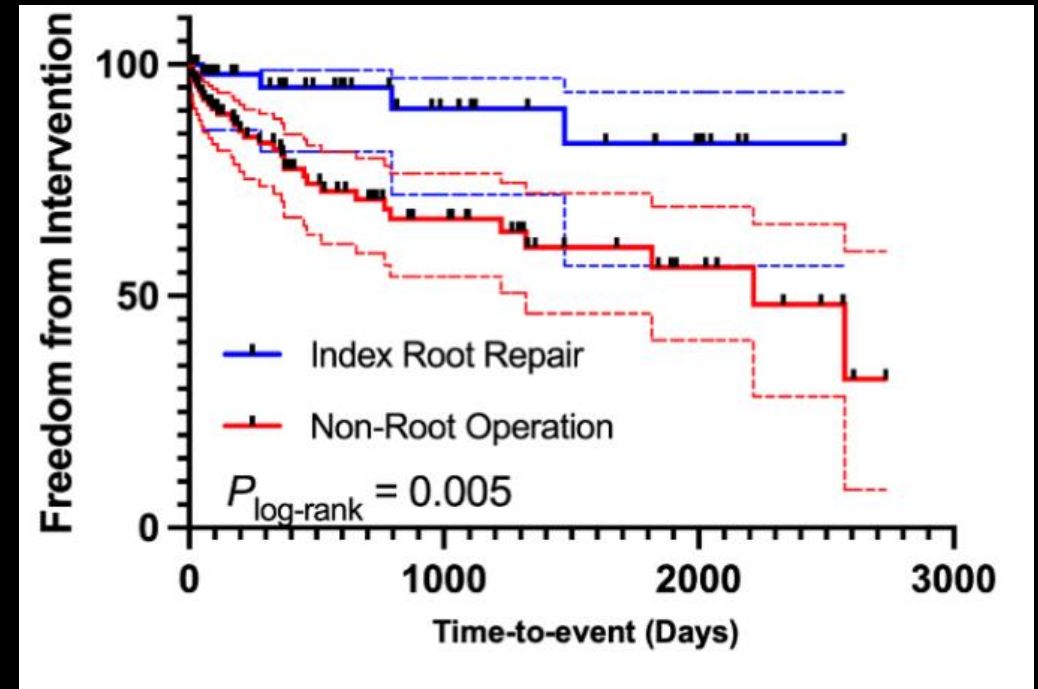
Methods

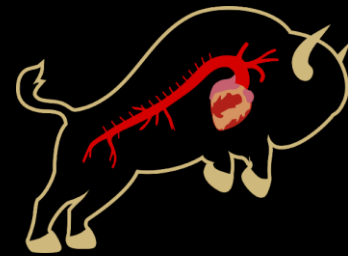
- A retrospective review of institutional aortic database from 2009-2021 for patients undergoing operative management of type A dissection without prior aortic history
- Patients separated into two cohorts based on aortic root management
 - Root replacement
 - Non-root replacement (including AV resuspension)
- Assess long-term follow-up and if/when re-intervention occurred
 - Re-intervention defined as repeat root, arch or distal re-intervention
 - If no re-intervention, furthest stable imaging from index surgery
- Perform Kaplan-Meier to determine freedom from re-intervention



Results

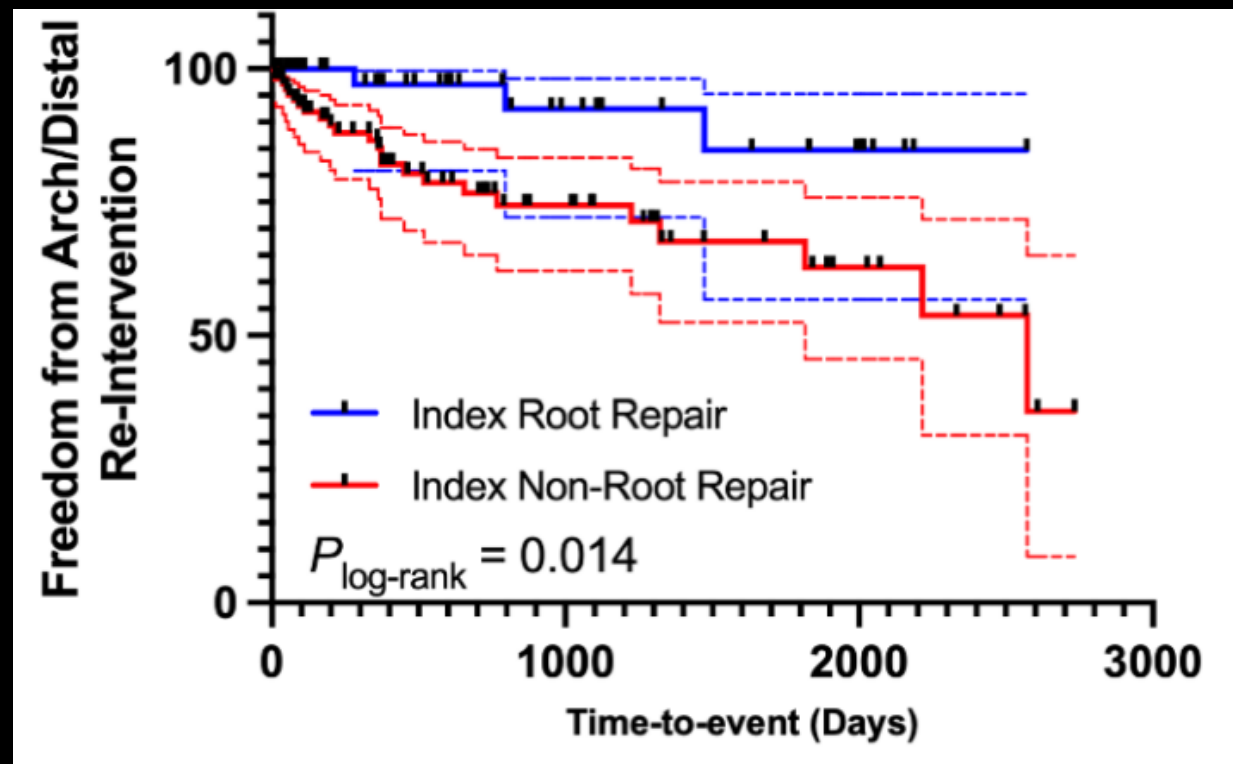
- 200 patients included in analysis
 - Median follow-up time of 390 days
- Regarding any aortic re-intervention (including root)
 - Root replacement at index surgery had higher freedom from re-operation at 2 and 4 years (95%, 91%, respectively); No root replacement (71%, 60%, respectively)
- No root replacement increased risk of any re-intervention [$p=0.005$, HR 2.8, 95% CI (1.2-6.3)]

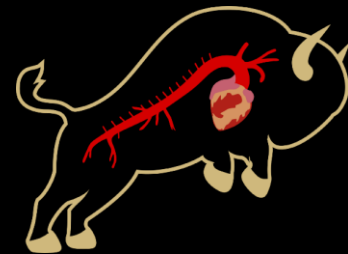




Results: Arch/Distal Reintervention Only

- Re-intervention for aortic root pathology excluded
- Patients who underwent root replacement had higher freedom from re-operation at 2 and 4 years (97%, 92%, respectively); No root replacement (77%, 67%, respectively)
- No root replacement at index surgery increases risk of need for arch/distal re-intervention [$p=0.014$, HR 2.8, 95% CI (1.3-5.6)]





Conclusions

- Aortic root replacement during type A dissection is protective from re-operation, including for pathology distal to root
- Advocates for more aggressive approach to aortic root at initial intervention when possible
- Further investigation needed to assess underlying mechanisms; how root procedural decision making impacts physiologic flow

Questions???

