

Ascending Aortic Pseudoaneurysm

Houston Aortic Symposium 2026

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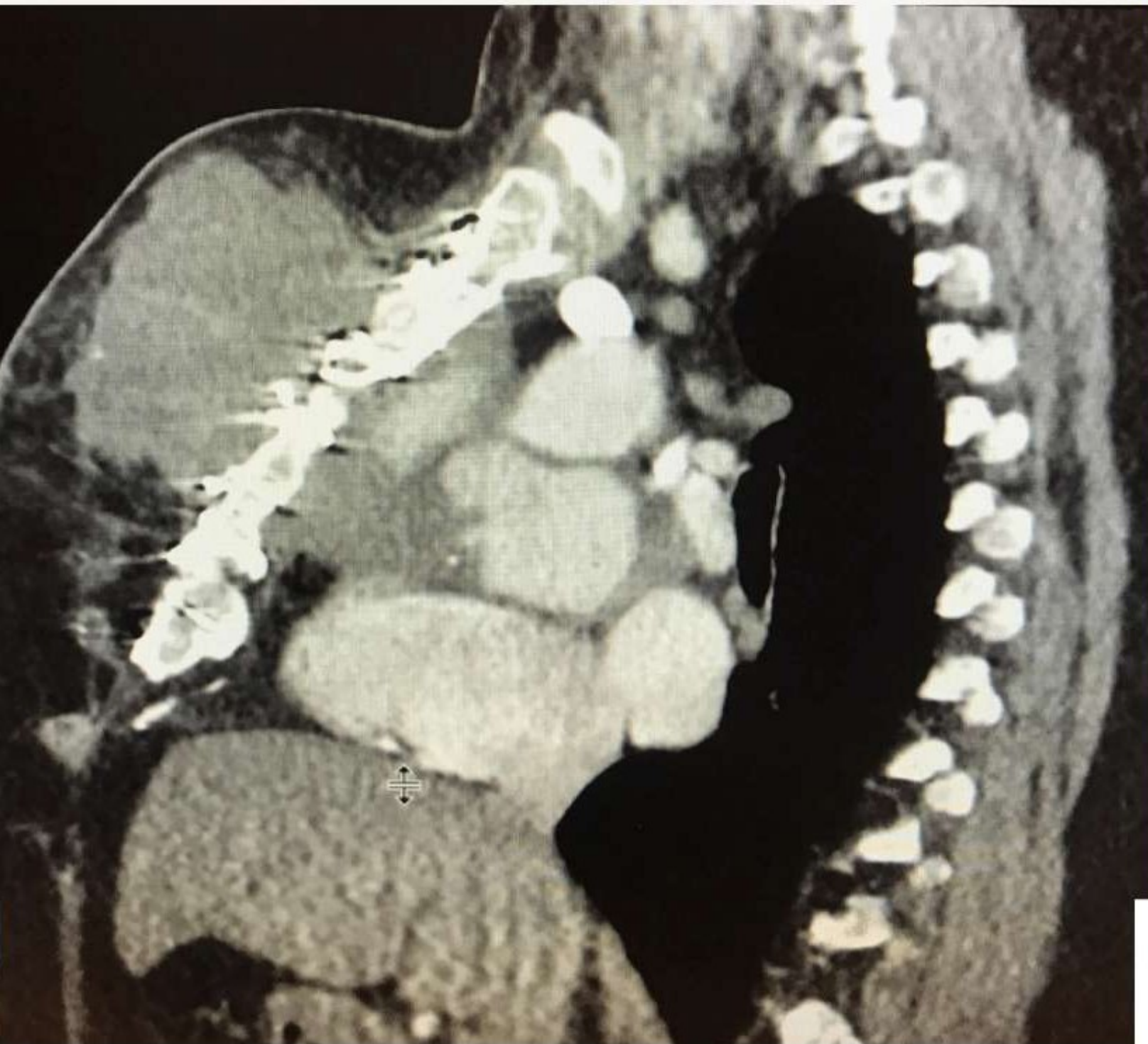


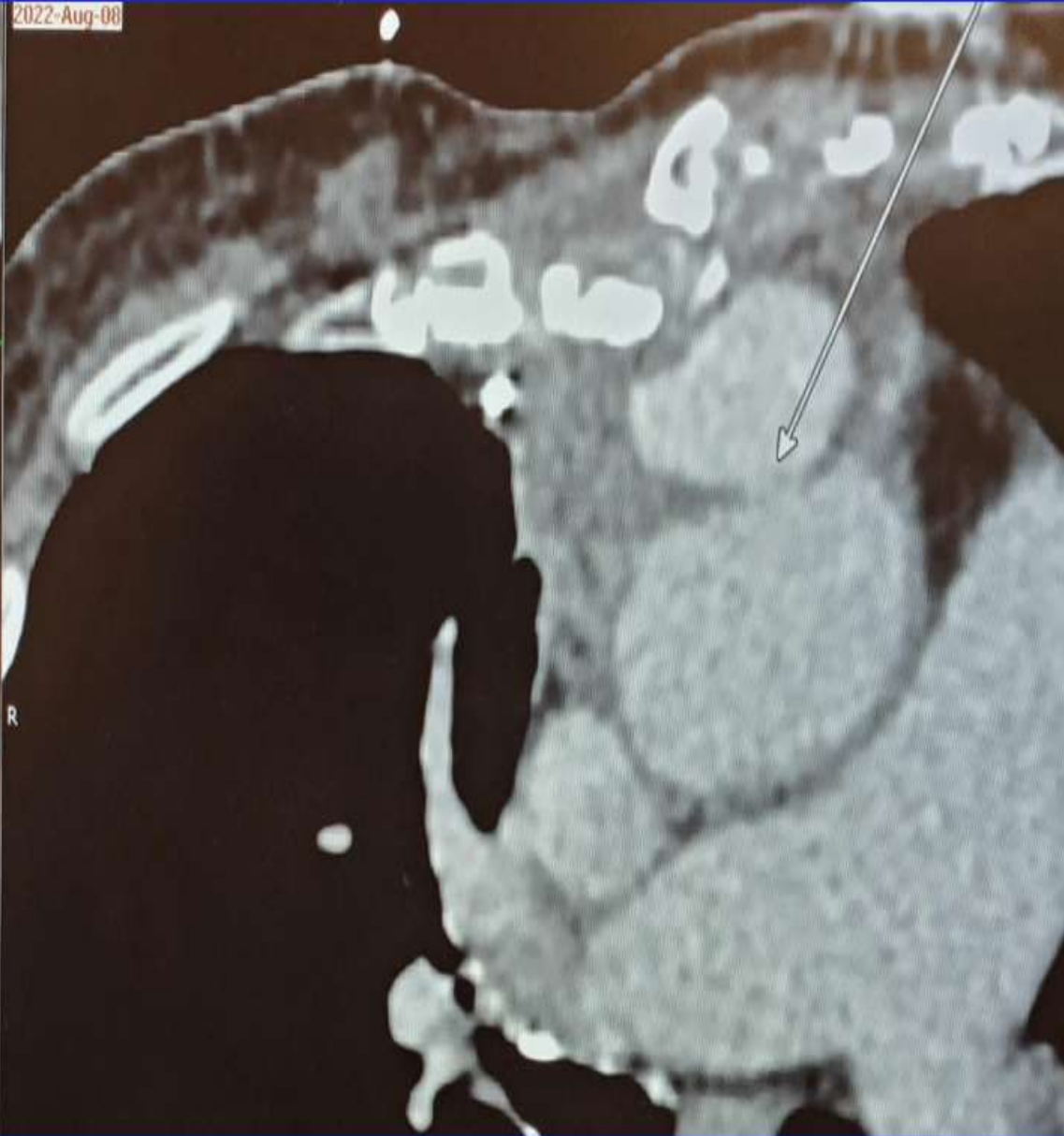
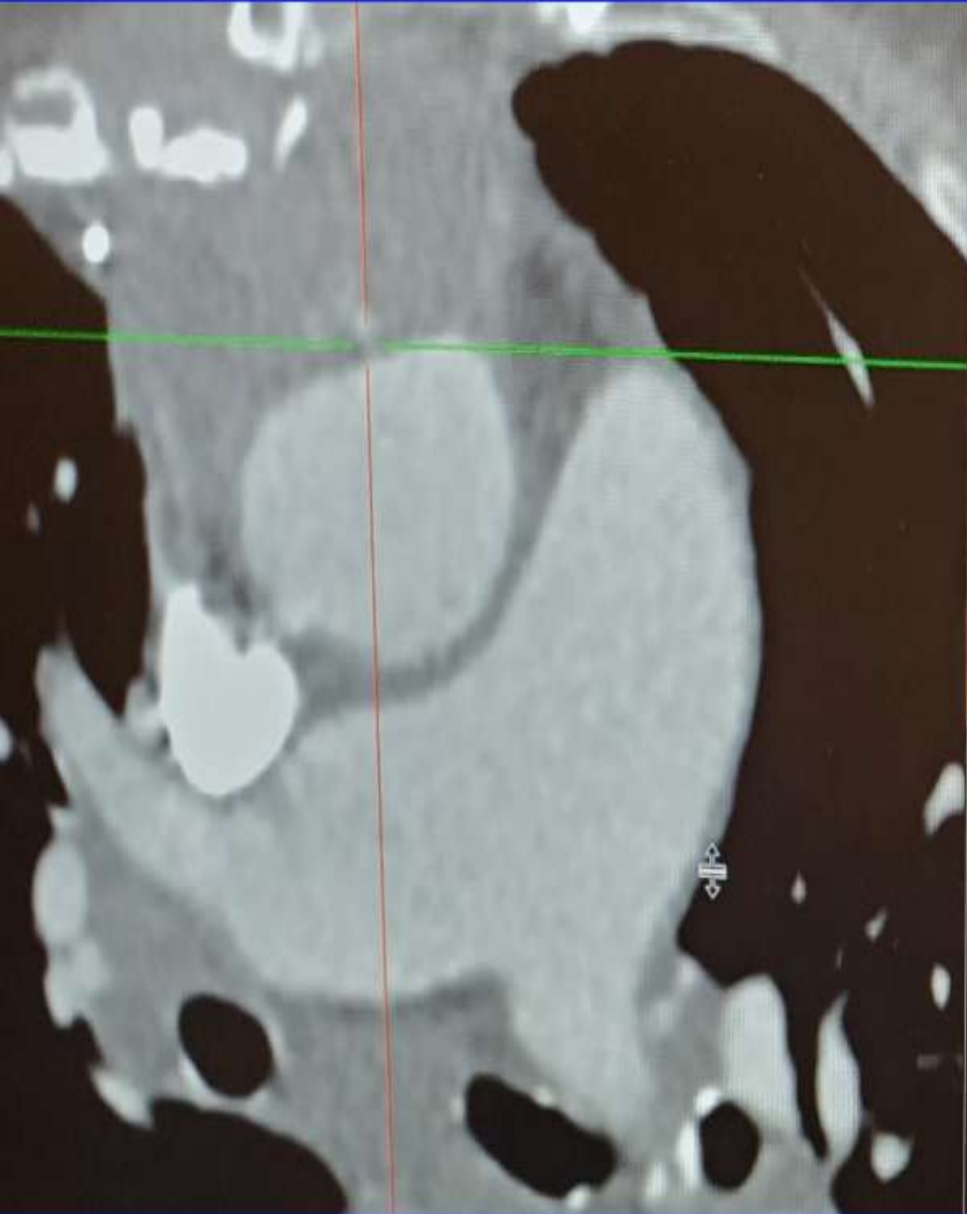
Disclosures

Consultant for Medtronic

Consultant for Terumo Aortic

Consultant for Roivios





PSEUDOANEURYSM

Preoperative Evaluation

- CT angiography to measure root, ascending aorta, coronaries
- TTE/TEE for valve function
- Assess coronary anatomy
- Open surgery the only option?? ASG?



UF DATA

METHODS

- **Design:** Retrospective single-center study, 2014-2024.
- **Population:** Adults ≥ 18 years undergoing surgical repair of proximal aortic pseudoaneurysm. N = 165
- **Locations:** aortic root, ascending aorta, arch
- **Outcome Assessment:** Survival was determined using the *Social Security Death Index* (SSDI), reflecting all-cause mortality.

UF DATA

Patient Characteristics

- Age: 60 ± 13 years; 67% male
- **Prior sternotomy: 91%**
- **Infection: 45%**
- Sternal erosion: 15%
- Median interval from prior surgery: 4.0 years [0.8–9.0]

Management:

- **Open repair: 94.5%**
- **Endovascular repair: 5.5%**

Pseudoaneurysm location:

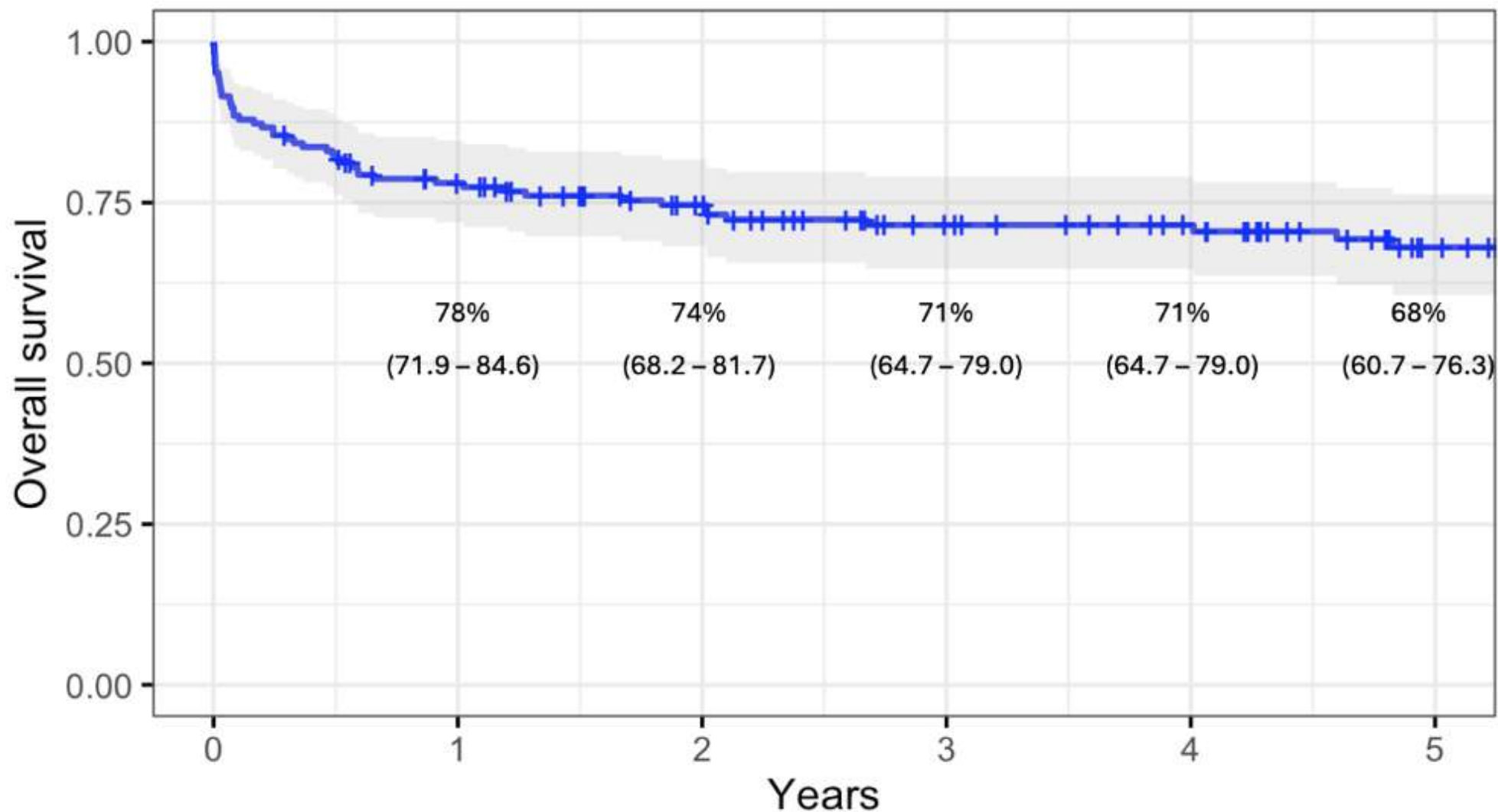
- Aortic Root – 42%
- Proximal Anastomosis – 22%
- Distal Anastomosis – 14%
- Proximal + Distal Anastomosis – 7%
- Aortic Arch – 7%
- Mid Ascending – 5%
- Anastomosis from prior CABG – 3%

Table 1. Operative Details for Open Repair N=156

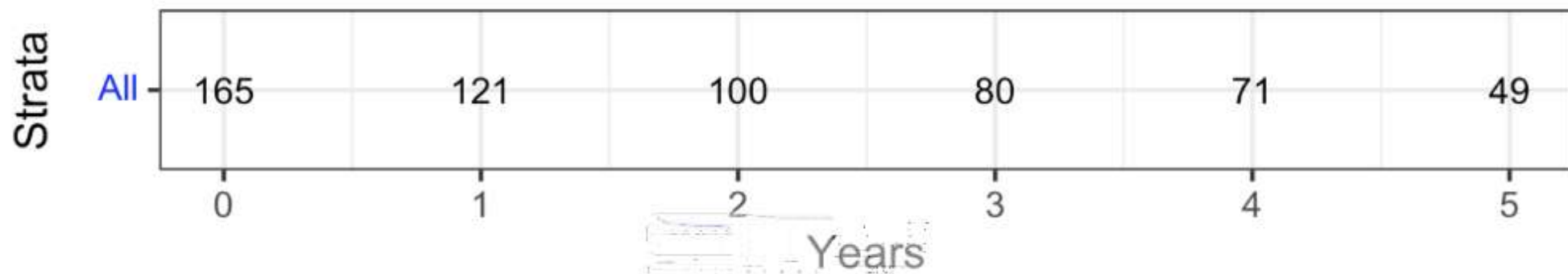
Concomitant Procedures		
Ascending aorta replacement/repair only		22 (14%)
Aortic Root Replacement		79 (51%)
Hemiarch		59 (38%)
Arch-Debranching		36 (23%)
TEVAR		27 (17%)
CABG		34 (22%)
Cannulation strategy	Central	77 (49%)
	Peripheral	79 (51%)
CPB initiated before sternotomy		27 (17%)
Cardiopulmonary Bypass Time, min		264.5 [213.5 - 314.3]
Aortic Cross-Clamp time, min		167.0 [125.0 - 221.0]

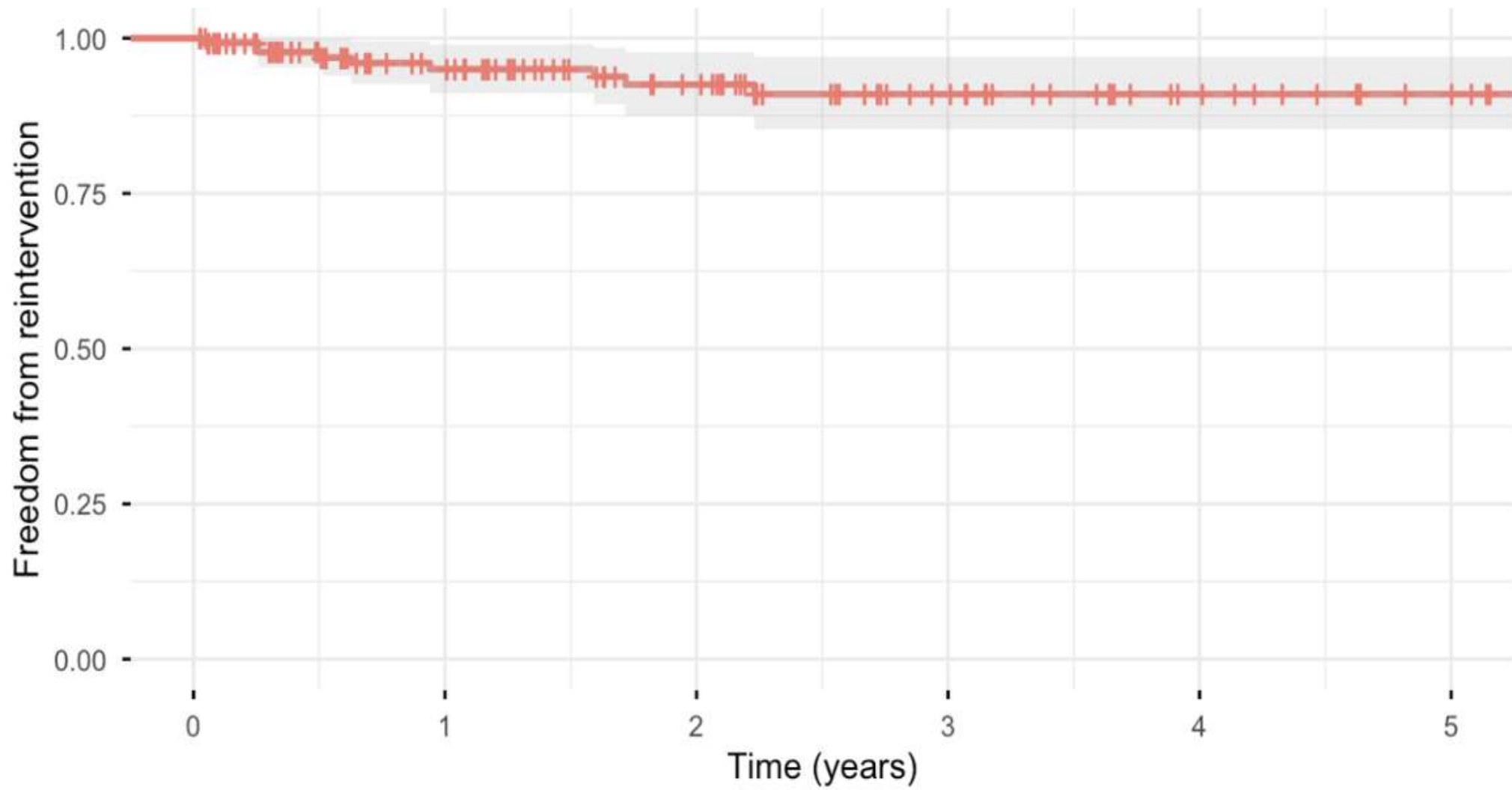
Table 2. Postoperative Outcomes N=165

Hospital Length of Stay, days	16.0 [12.0 - 25.0]
Reoperation for bleeding	13 (7.8%)
Omental flap	32 (19.3%)
New dialysis requirement	17 (10.3%)
Superficial sternal wound infection	3 (1.8%)
Deep sternal wound infection	2 (1.2%)
New Pacemaker	19 (11.5%)
Pneumonia	9 (5.4%)
Tracheostomy	20 (12.1%)
Disabling Stroke	8 (4.8%)
In-hospital mortality	15 (9.0%)



Number at risk



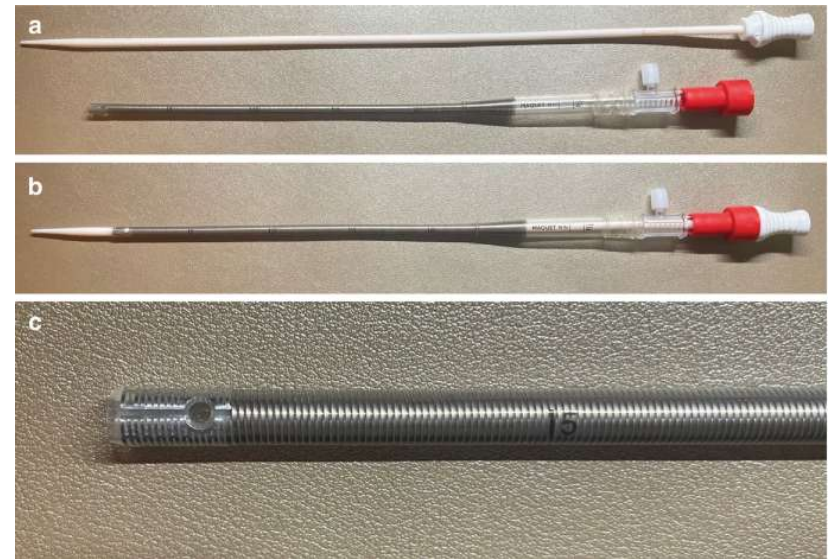


Number at risk

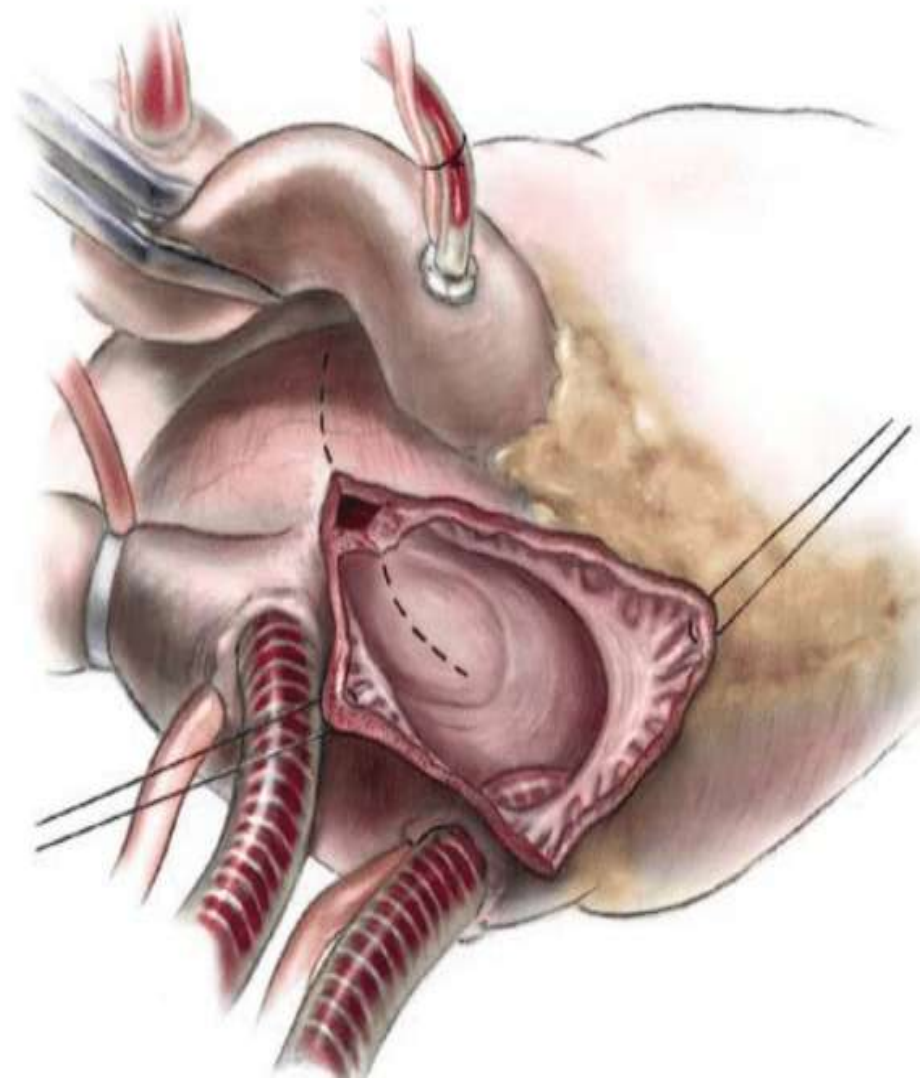
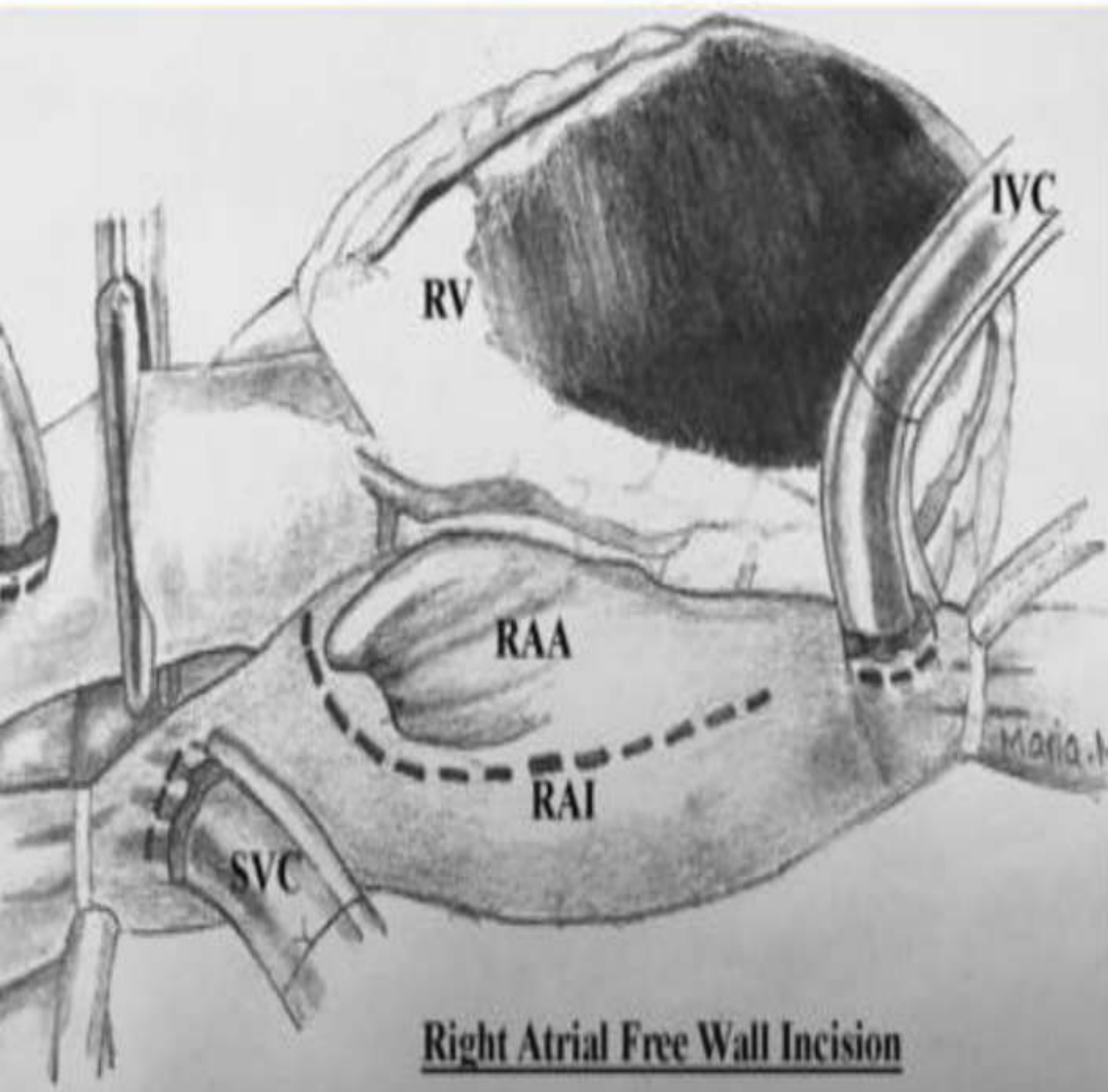
Strata	0	1	2	3	4	5
All	145	97	69	46	31	21

Key Open Surgical Steps

- Establish cardiopulmonary bypass, LV vent, and cooling
- Address underlying Valve/ascending/root issues



EXPOSURE



AGGRESSIVE DEBRIDEMENT

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CULTURES

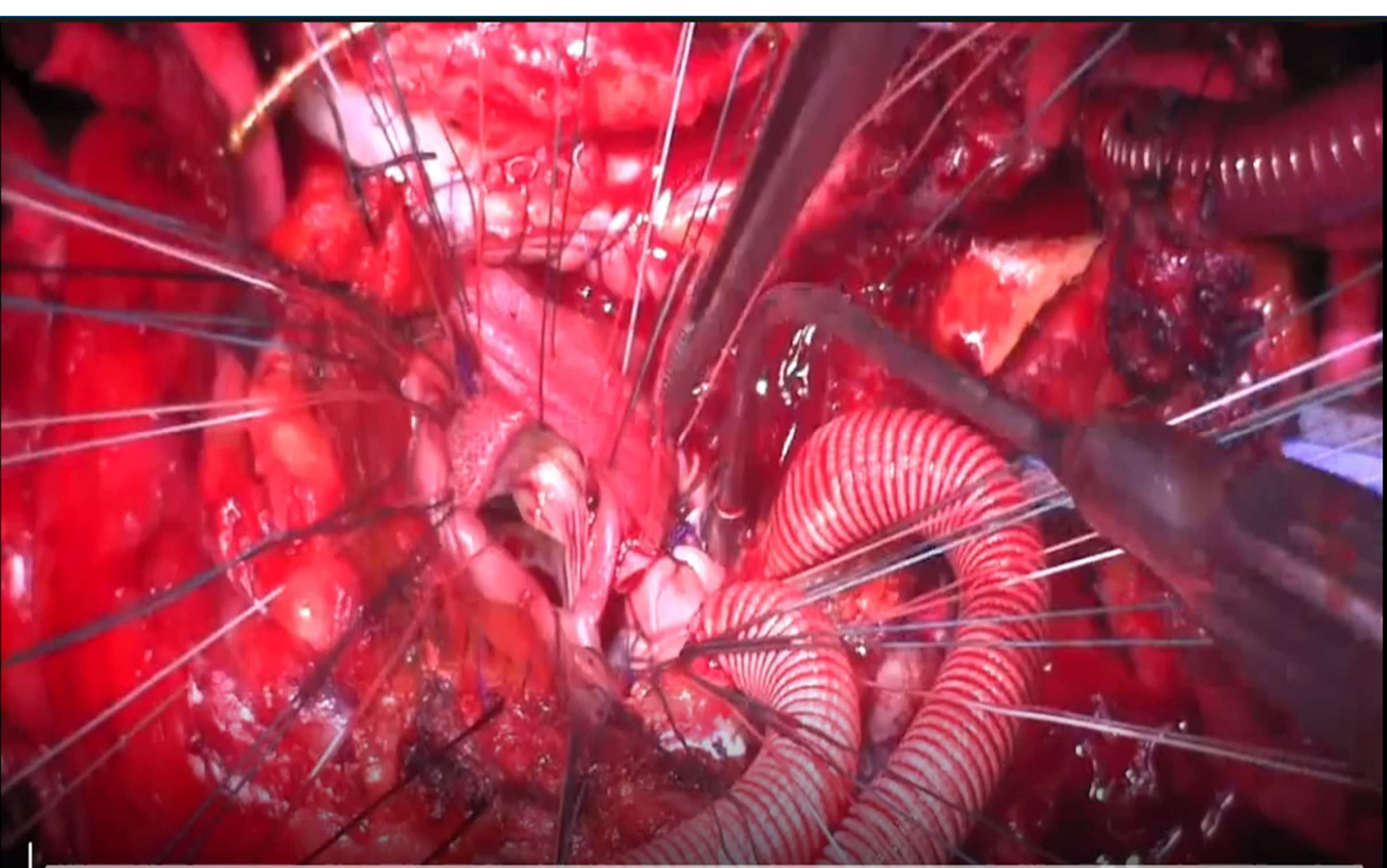
AEROBIC, ANAEROBIC,

FUNGAL

PCR

HOUSTON
AORTIC

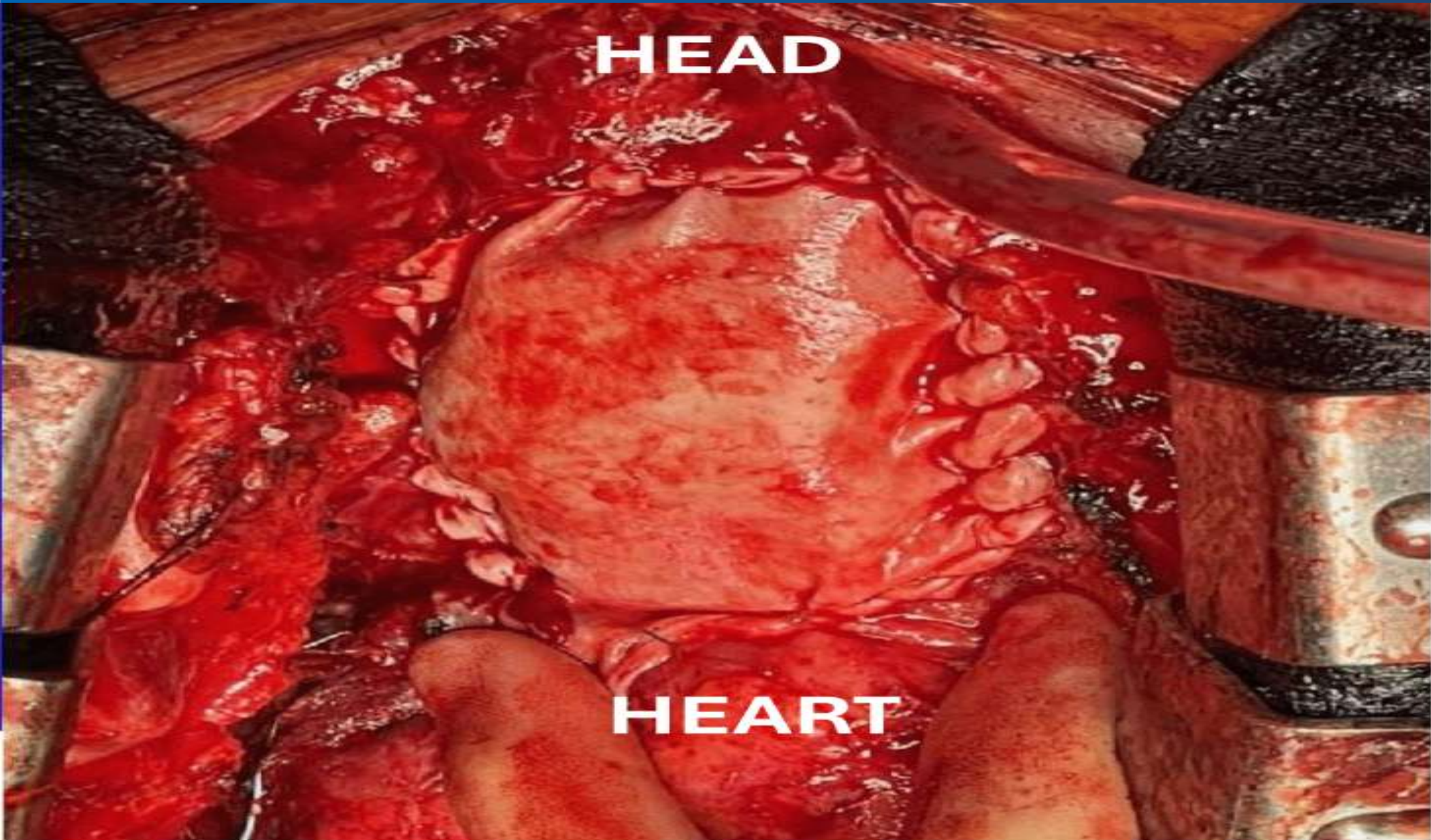
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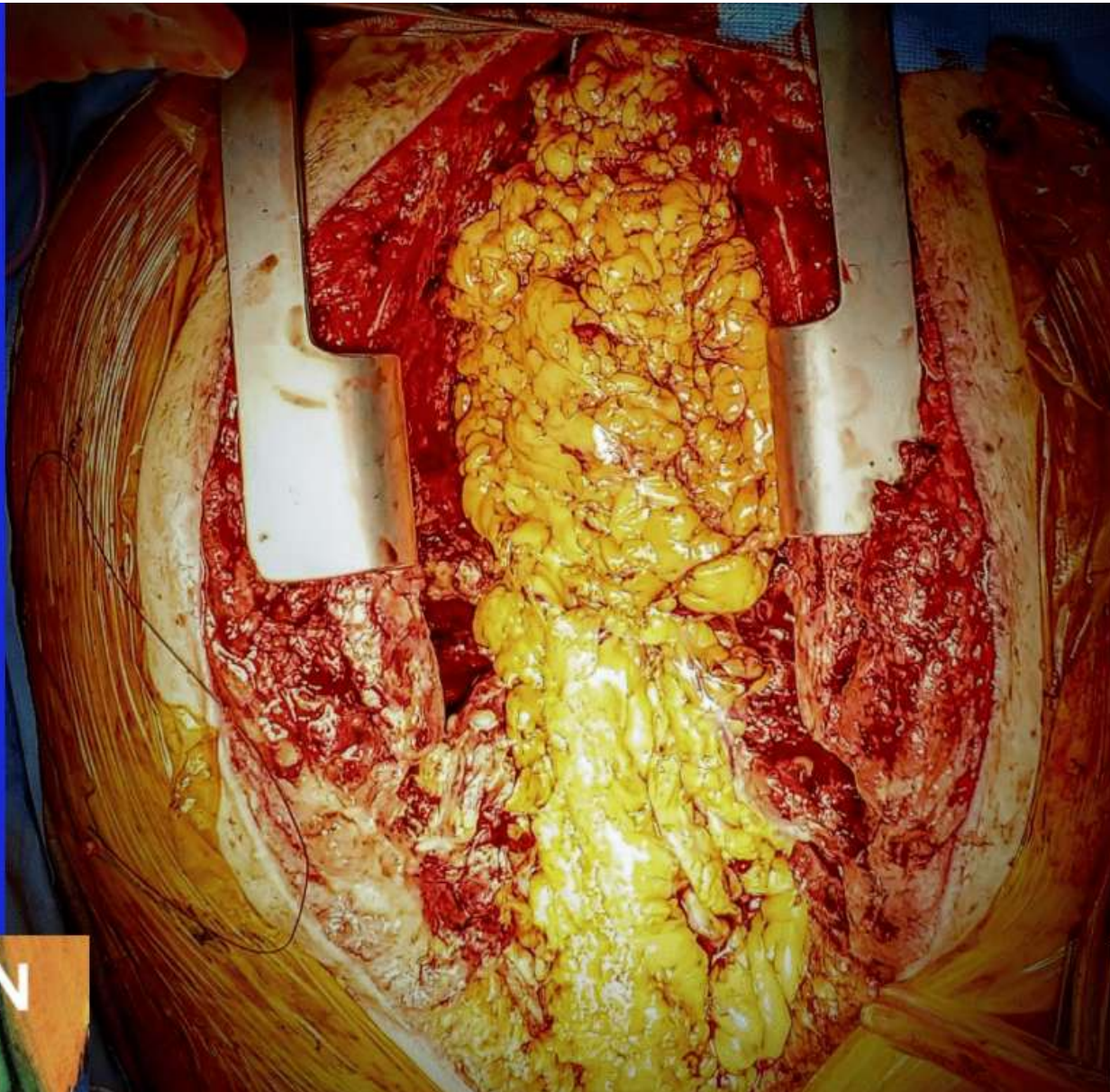
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BOVINE PERICARDIAL MATTRESS



OMENTAL FLAP



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LIFE LONG SUPPRESSIVE ANTIBIOTICS

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Summary

- Safe Reentry
- Cardiopulmonary bypass and LV venting
- Aggressive debridement and reconstruction
- Washout and source control
- Antibiotic suppression



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