

Investigation of the Efficacy of Endoscopic MICS in Reoperations after Mitral Valve Repair

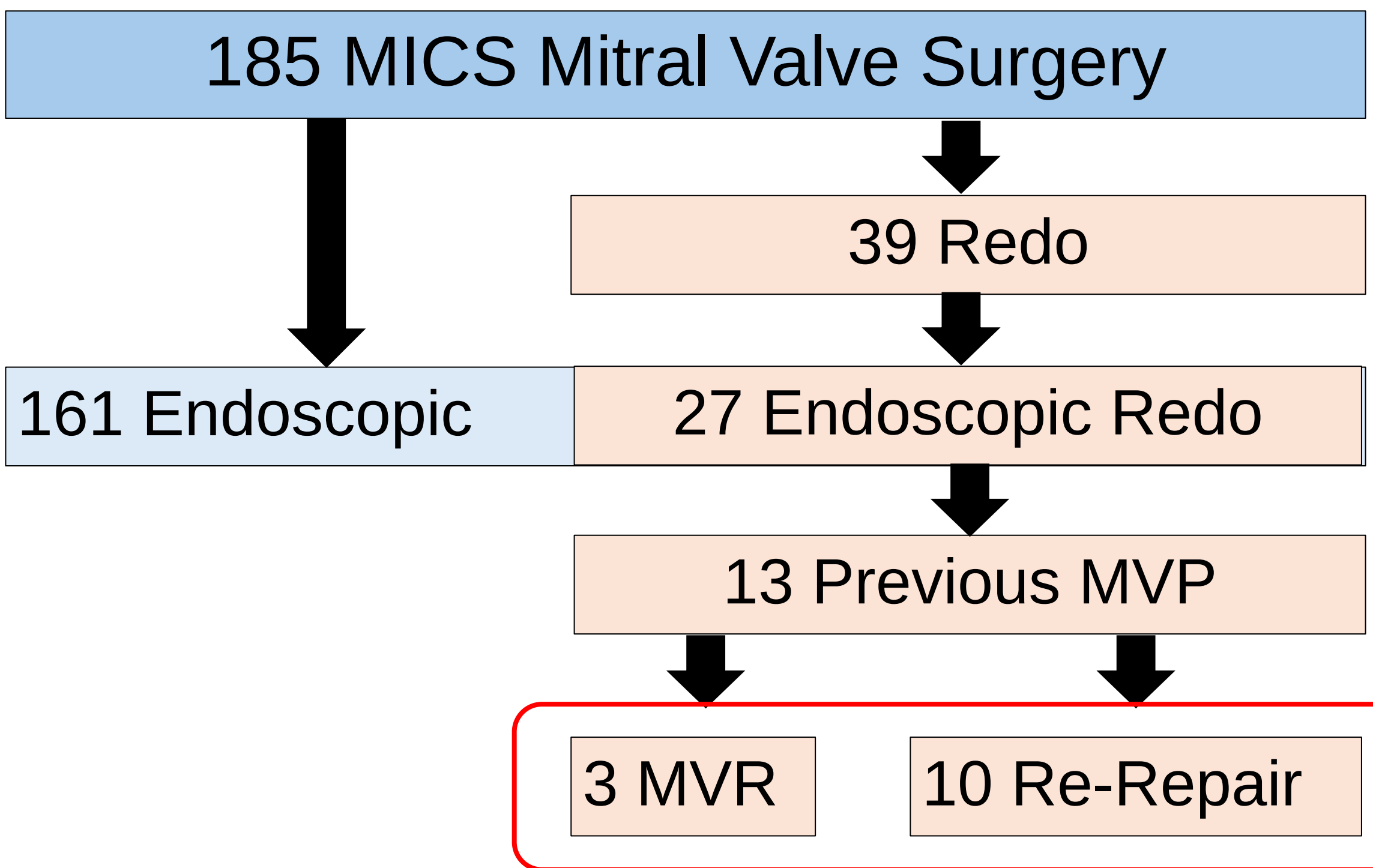
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BACKGROUND & OBJECTIVE

- 3D Endoscopic MICS for mitral valve reoperation is technically challenging.
- This study aimed to evaluate the efficacy of the 3D Endoscopic MICS platform in reoperations after mitral valve repair.

PATIENTS & METHODS

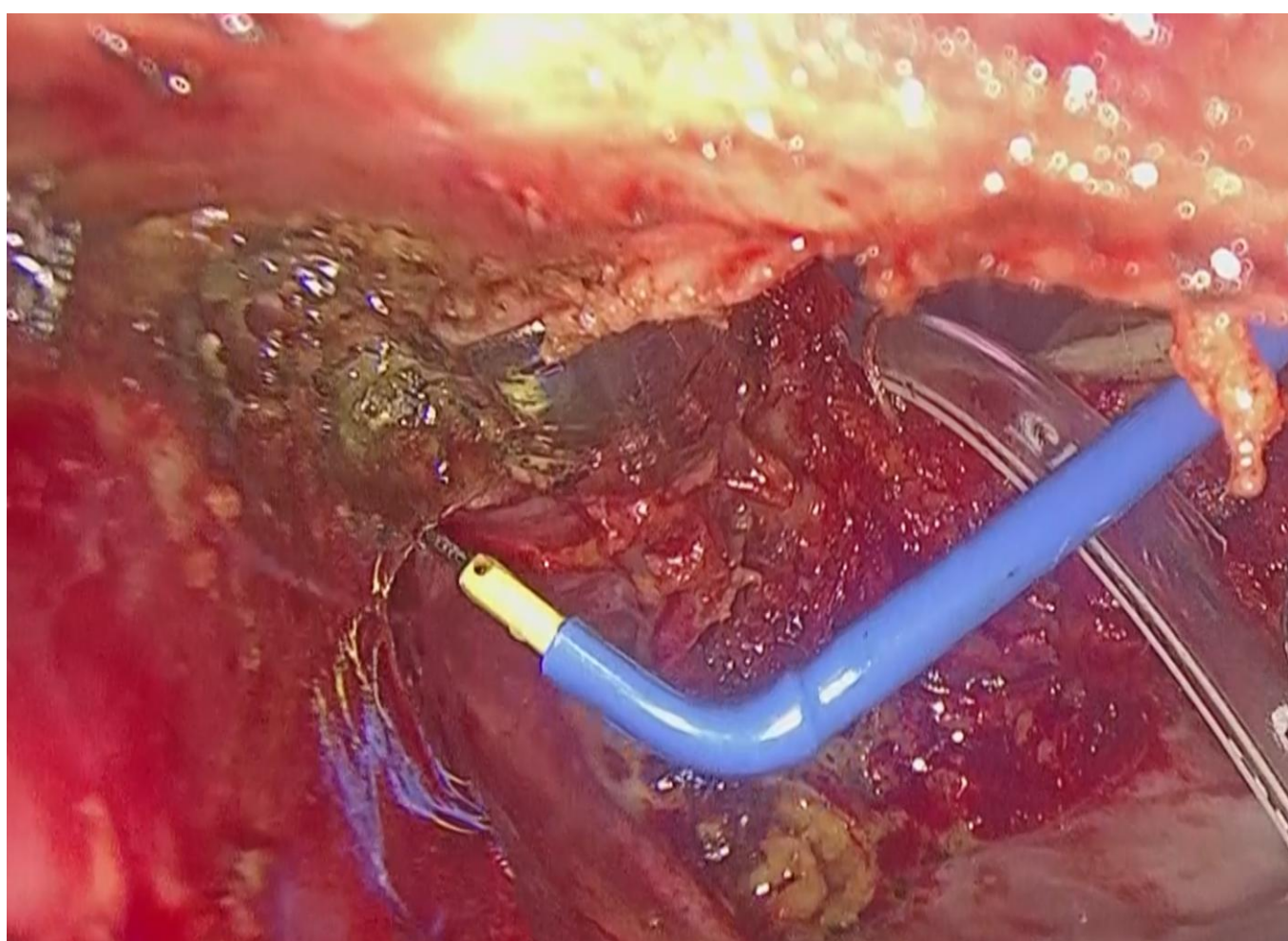


- May 2018 – May 2025
- N=13 Redo MV surgery after MVP
- Age, y 70 ± 5.8
- Male 10 (77%)
- Interval since previous surgery, m 102 ± 94 (4-277)
- Active endocarditis 0 (0%)
- Prior MICS 5 (38%)

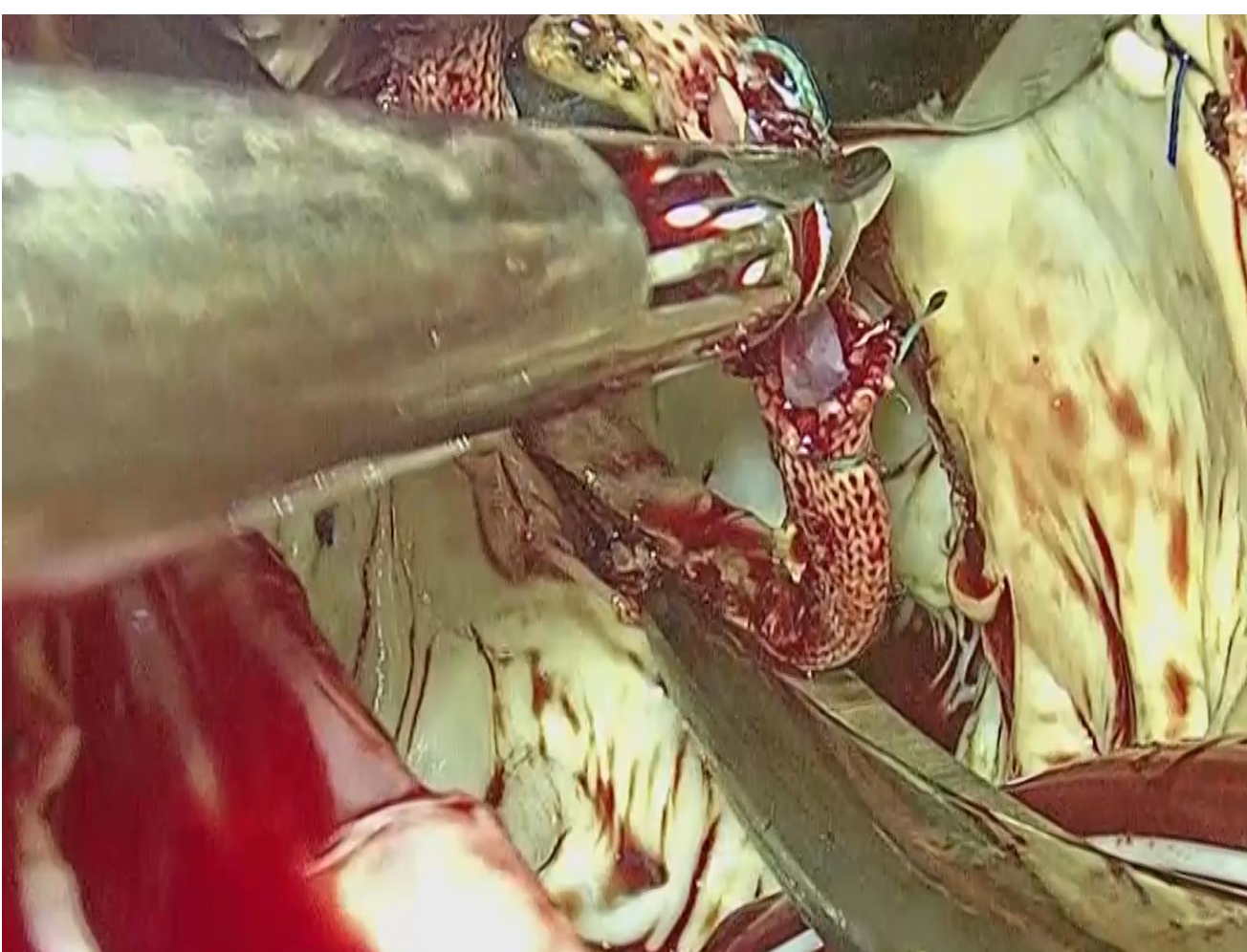
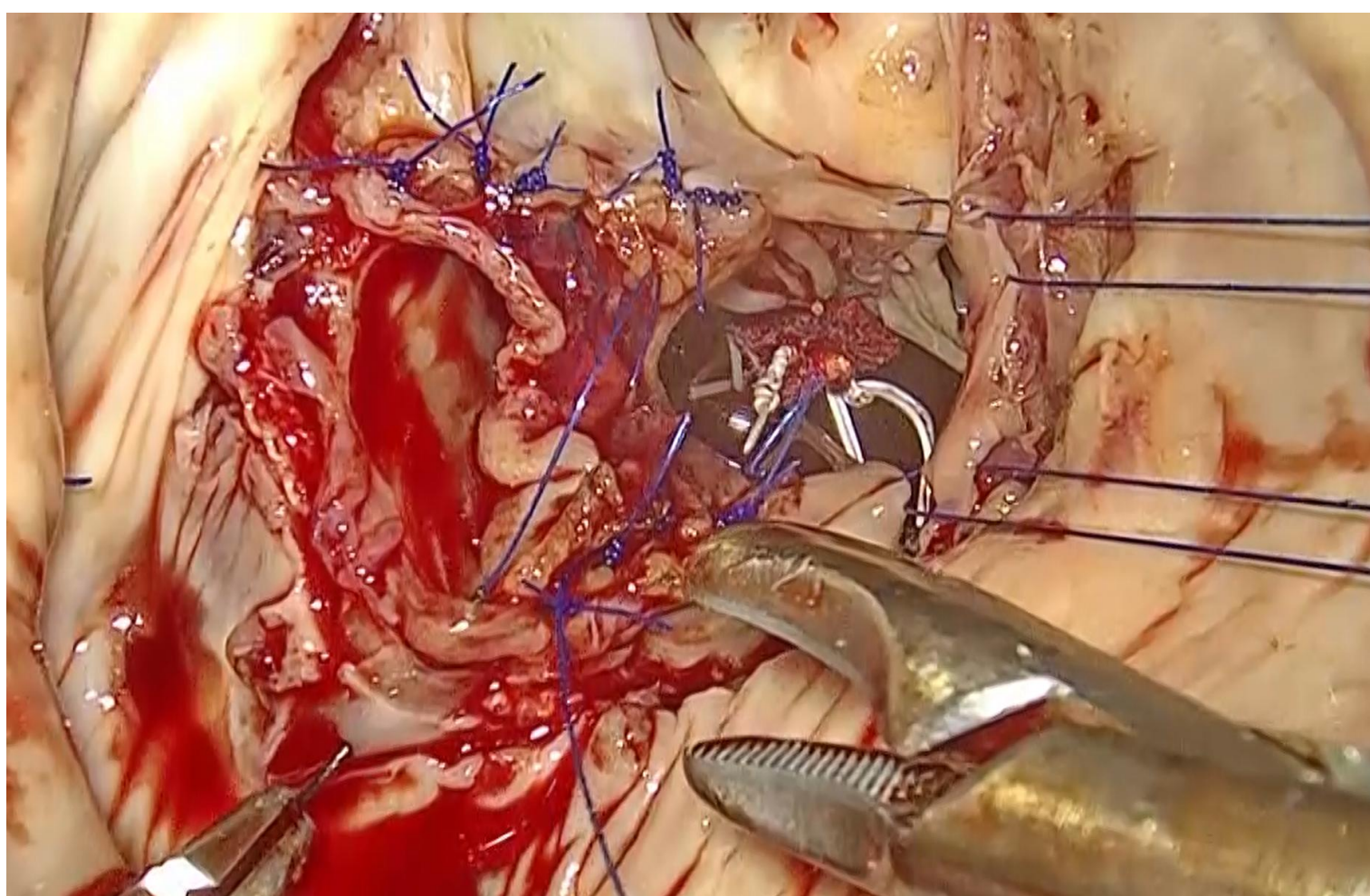
SURGICAL TECHNIQUE



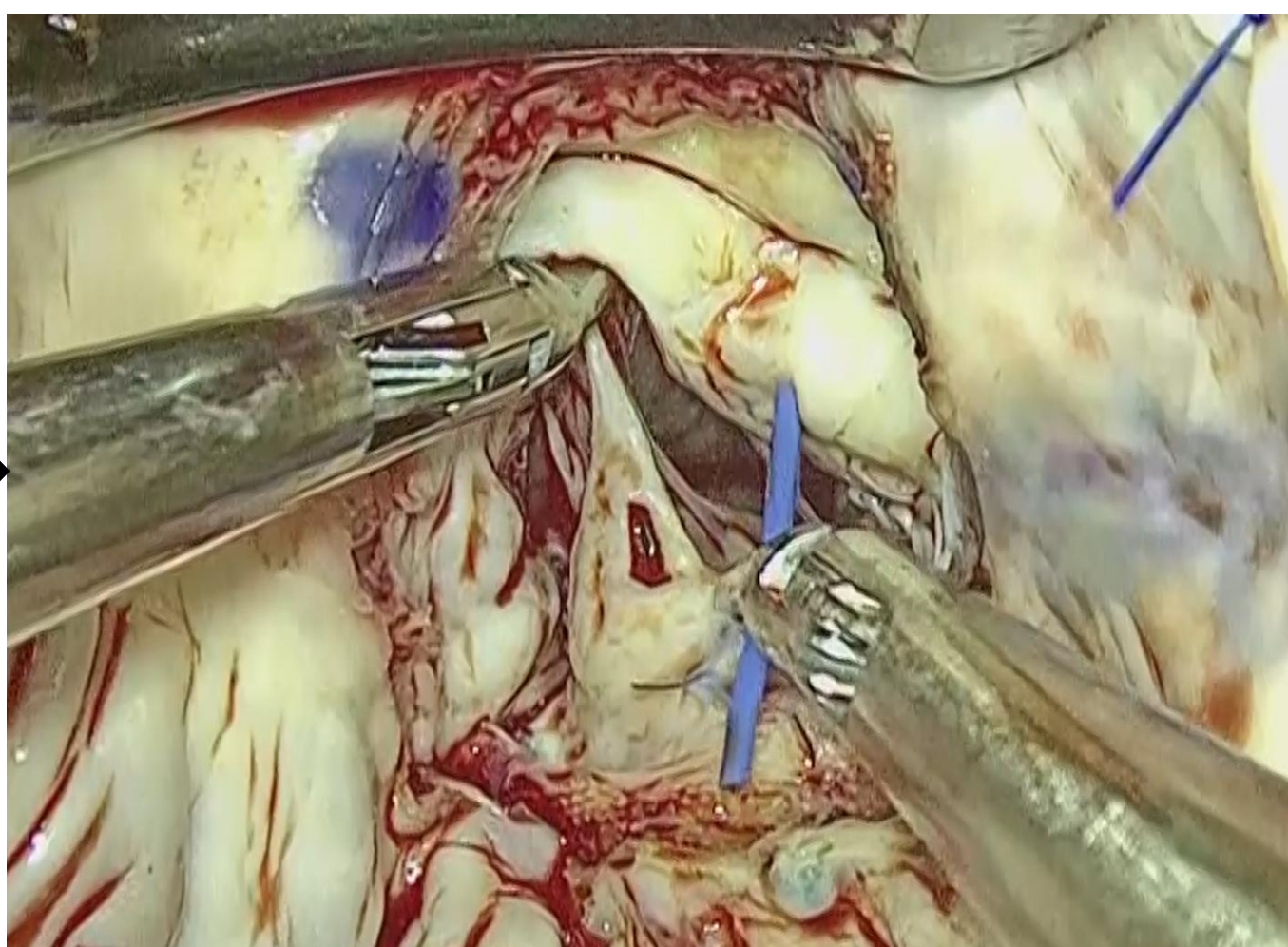
Dissection of adhesions using endoscopic techniques



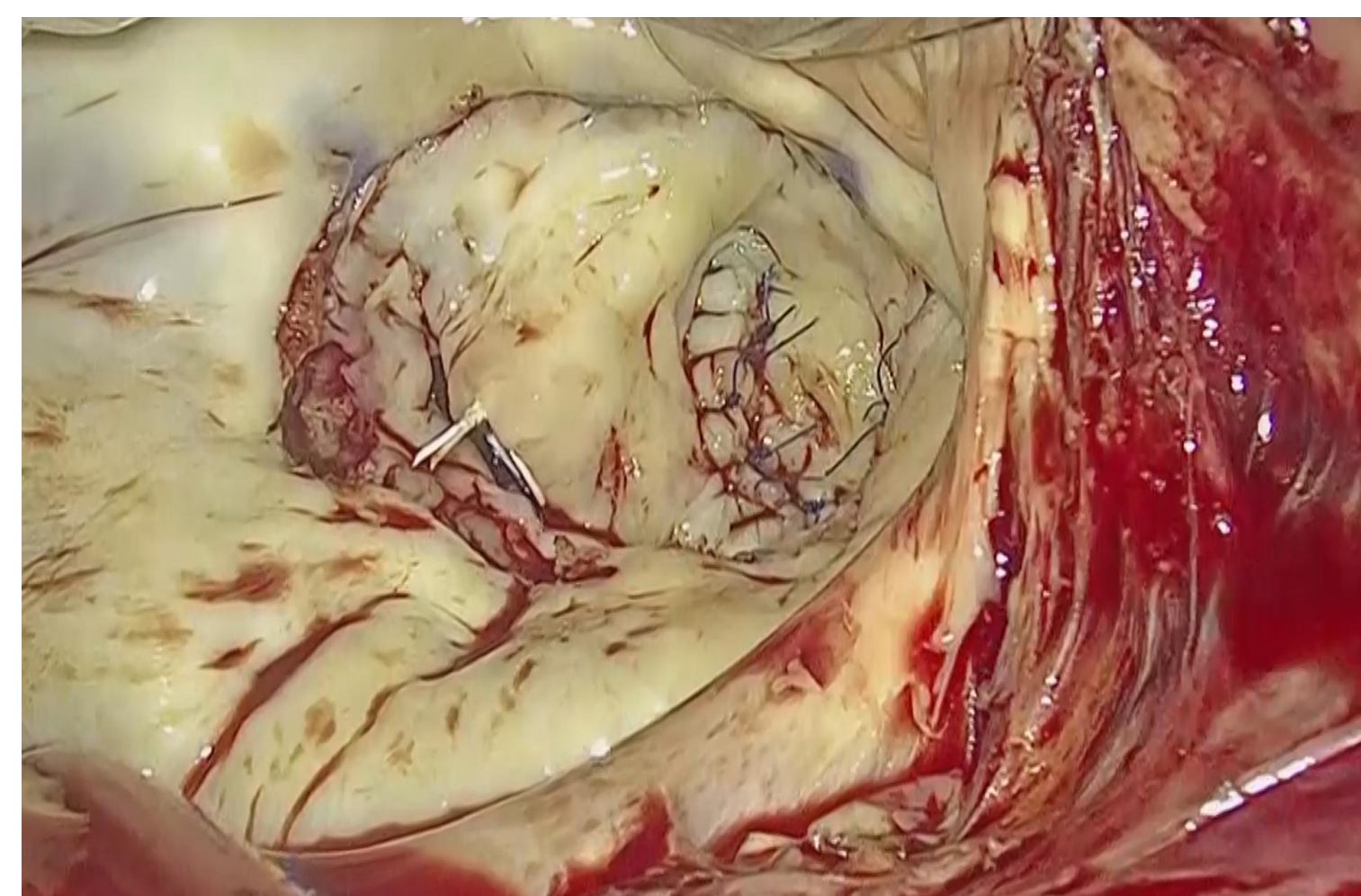
P1 patch plasty



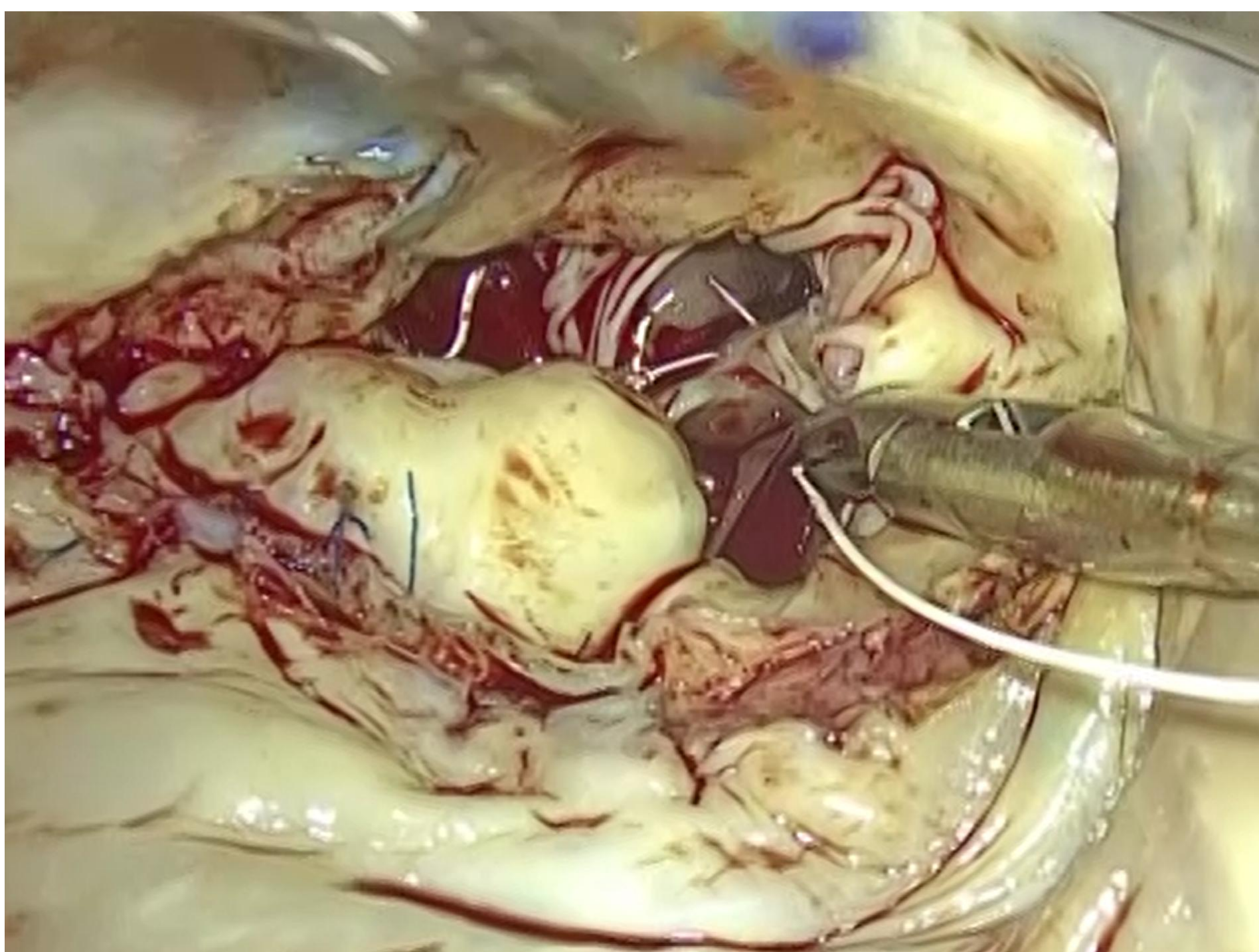
Removal of the prosthetic ring



Leaflet Assessment



A2 triangular resection



Loop technique

INTRA OPERATIVE VARIABLES

- Under ventricular fibrillation 1 (8%)
- Additional antegrade perfusion 2 (15%)
- Lower limb perfusion 1 (8%)
- Median conversion 0
- 2nd pump run 0
- Op. duration, min 364 ± 86 (338)
- ECC time, min 271 ± 76 (237)
- ACC time, min 155 ± 50 (152)
- RBC, U 5.4 ± 4.4
- FFP, U 1.7 ± 2.4

RESULTS

- Technical success 13(100%)
- Mortality 0
- Stroke 0
- UPE 0
- Re-exploration 1 (8%)
- ICU stay, d 3.1 ± 5.0 (1)
- P.O stay, d 16 ± 17 (9)
- Post MR < mild 100%
- m-PG 3.1 ± 1.1 (3)

CONCLUSION

- In mitral valve reoperations, the 3D endoscopic MICS platform proved safe and effective not only for valve replacement but also for re-repair.

Surgical Video

- 64 y/o male
- 44 months prior
- Ring detachment, P2 Prolapse
- Op time, m 324
- ECC time, m 236
- ACC time, m 139
- ICU stay, d 1
- P.O stay, d 7