

Redo Robotic-Assisted Mitral Valve Repair

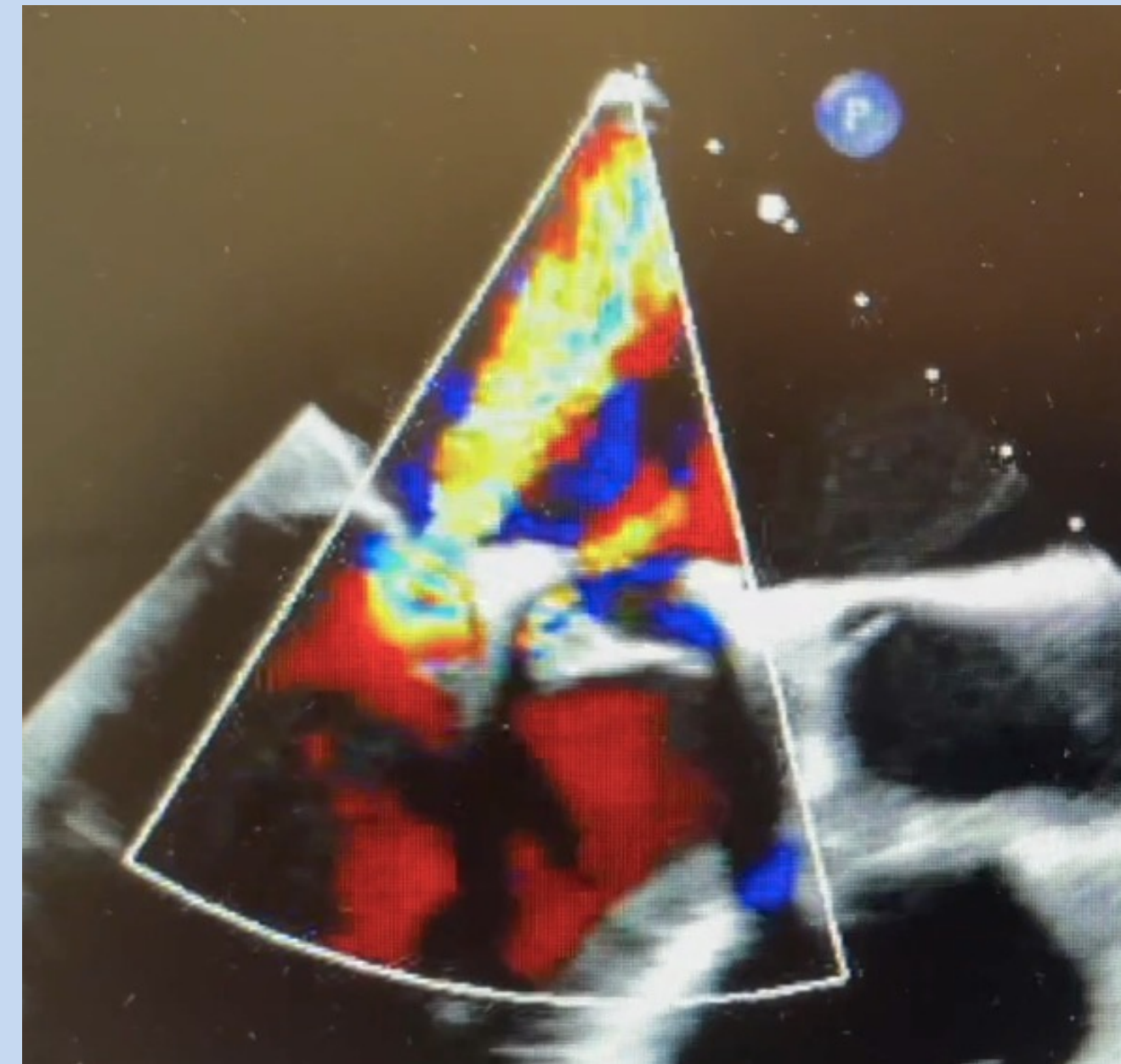
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BACKGROUND

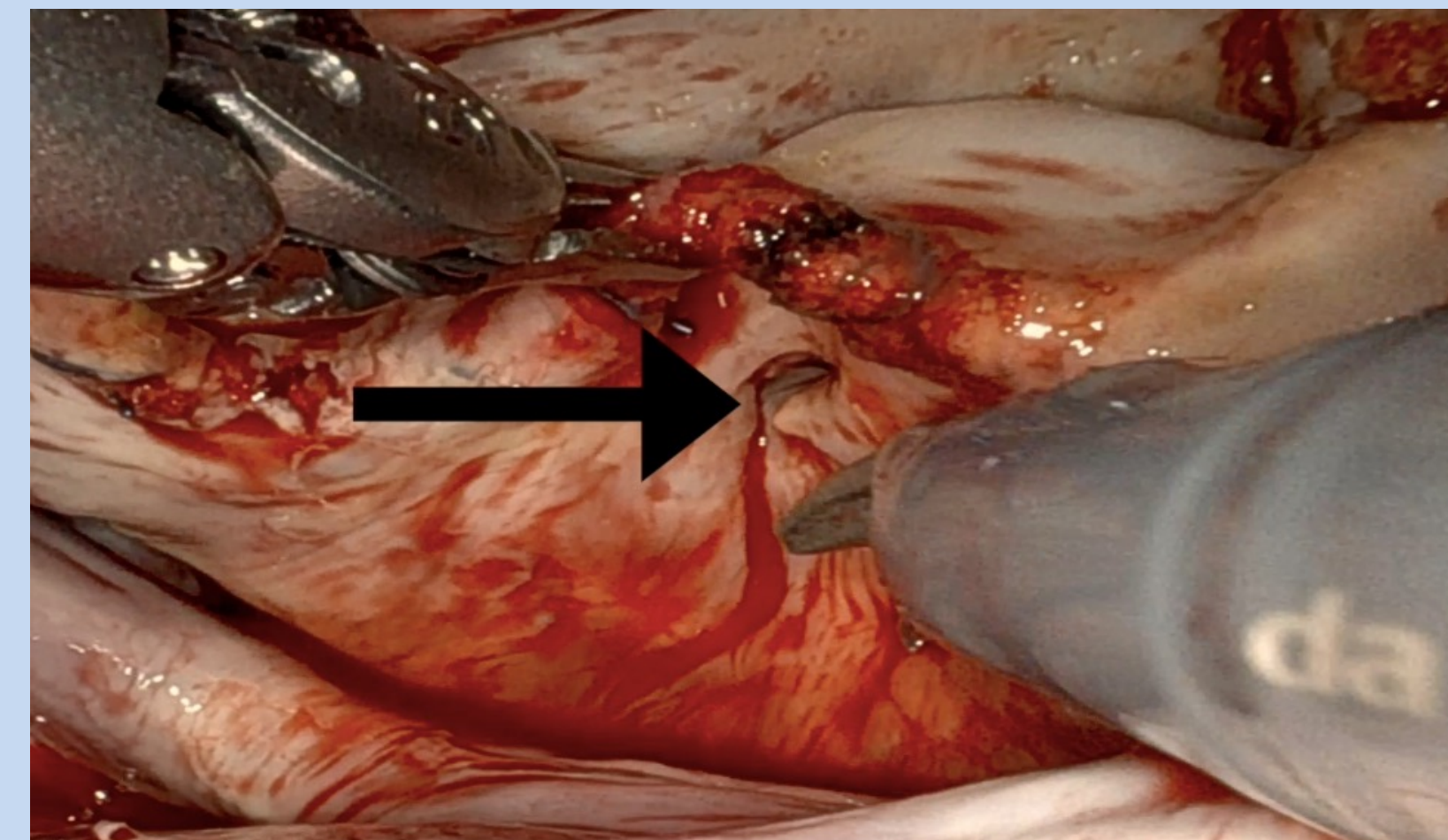
Redo robotic-assisted mitral valve repair remains relatively uncommon

METHODS

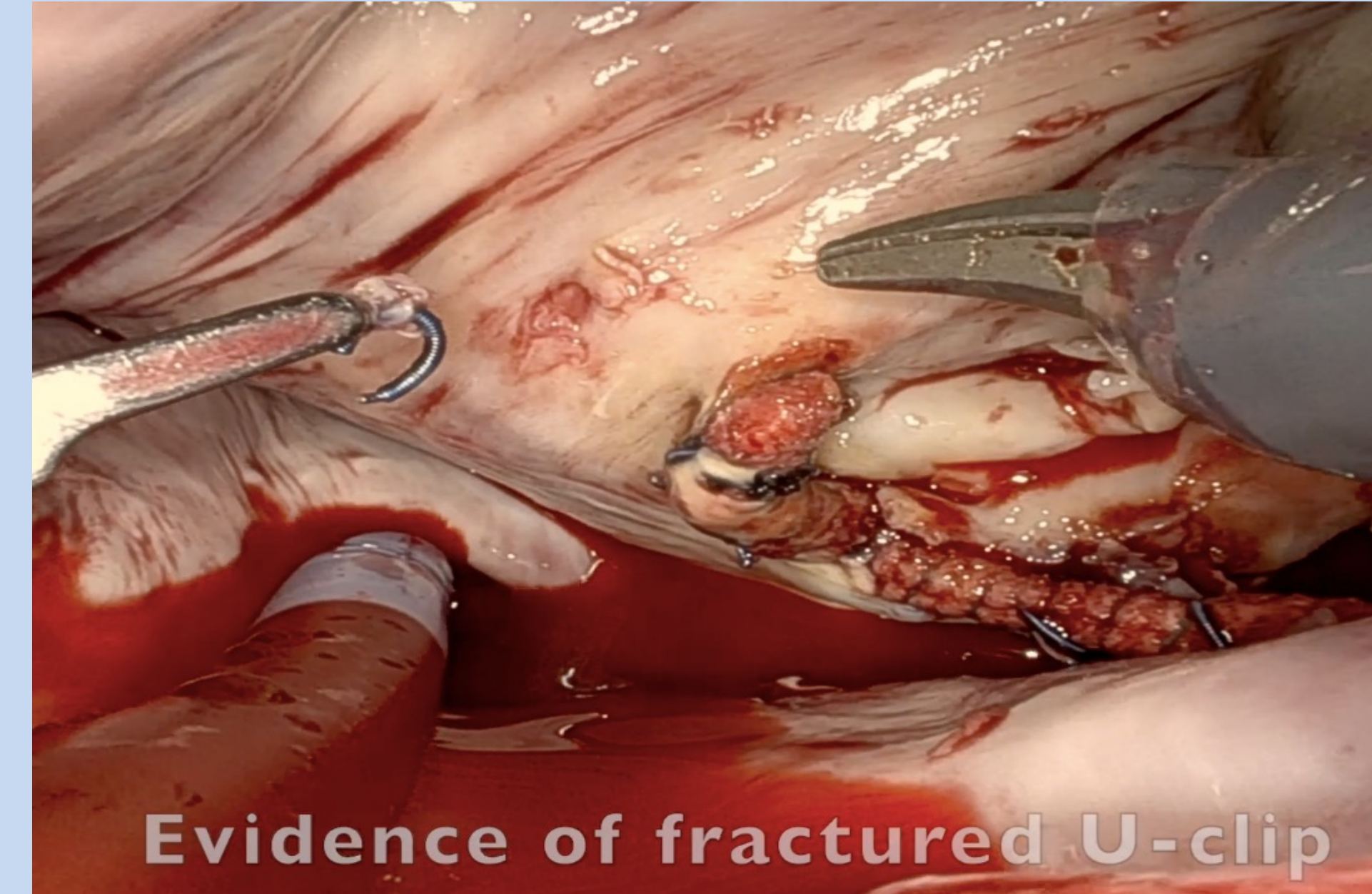
54 year old male in 2004 underwent a robotic-assisted mitral valve repair consisting of a triangular P2 resection, leaflet repair, and posterior annuloplasty band insertion secured with nitinol U-clips. He remained stable but experienced a respiratory infection earlier this year associated with shortness of breath on exertion. Cardiology follow-up revealed a new systolic heart murmur and episodes of intermittent atrial fibrillation. Subsequent TEE revealed evidence of a likely posterior leaflet perforation. We felt this was repairable with a robotic assisted approach.



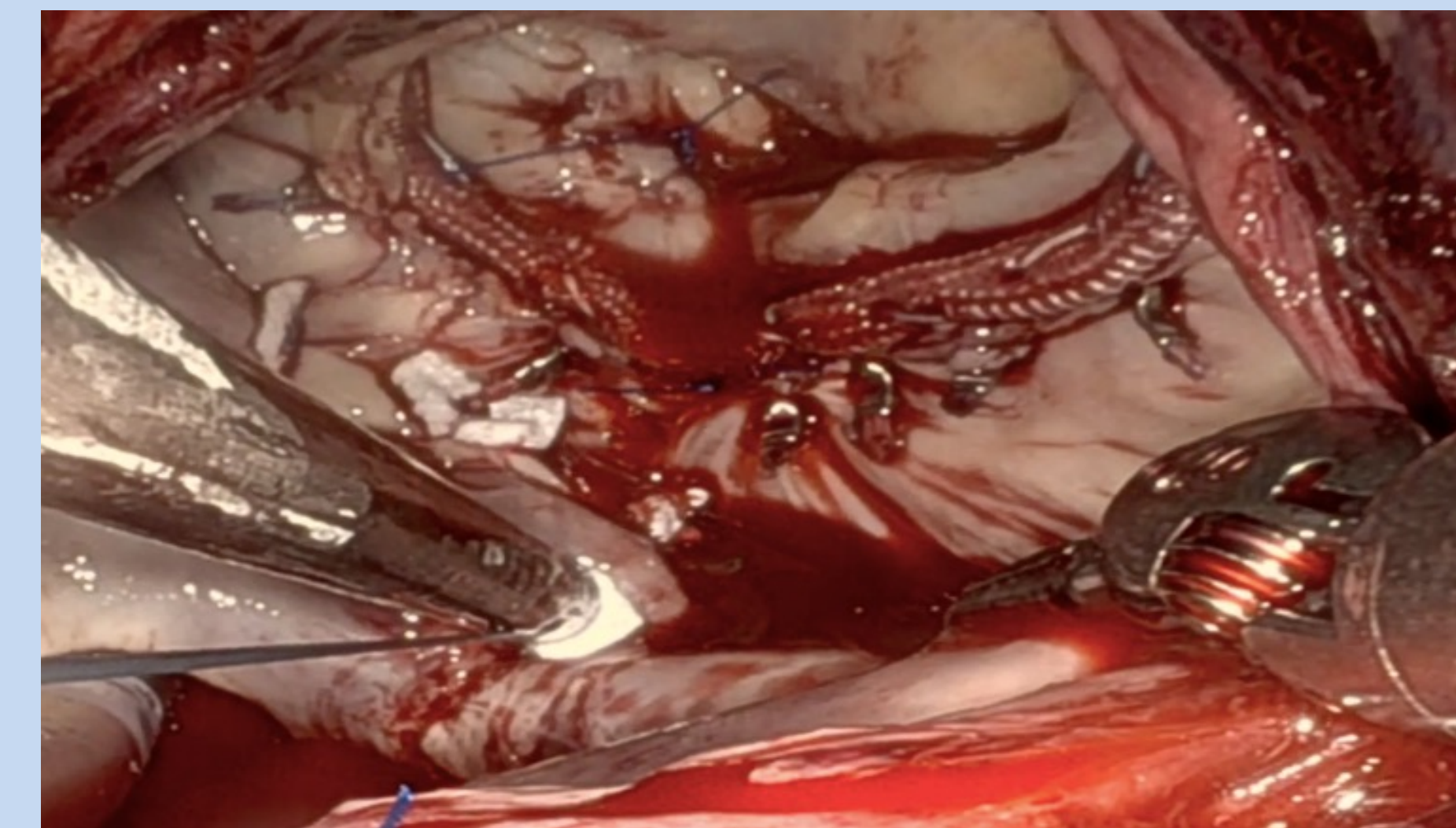
Intraoperative TEE showing evidence of posterior leaflet perforation and severe MR



Intraoperative photo of posterior leaflet perforation



Intraoperative photo showing evidence of fractured Nitinol U-clip



Intraoperative photo of completed repair

RESULTS

The patient underwent successful robotic-assisted mitral valve repair consisting of:

- primary repair of the posterior leaflet perforation,
- P1/P2 cleft repair
- posterior annuloplasty band placement
- cryomaze procedure
- endocardial ligation of left atrial appendage.

Intraoperative transesophageal echocardiography revealed no mitral regurgitation.

CONCLUSION

Redo robotic-assisted repair is feasible in select patients with favorable pathology.

REFERENCES

Murphy, D.A., Moss, E., Miller, J. and Halkos, M.E., 2018. Repeat robotic endoscopic mitral valve operation: a safe and effective strategy. *The Annals of Thoracic Surgery*, 105(6), pp.1704-1709.