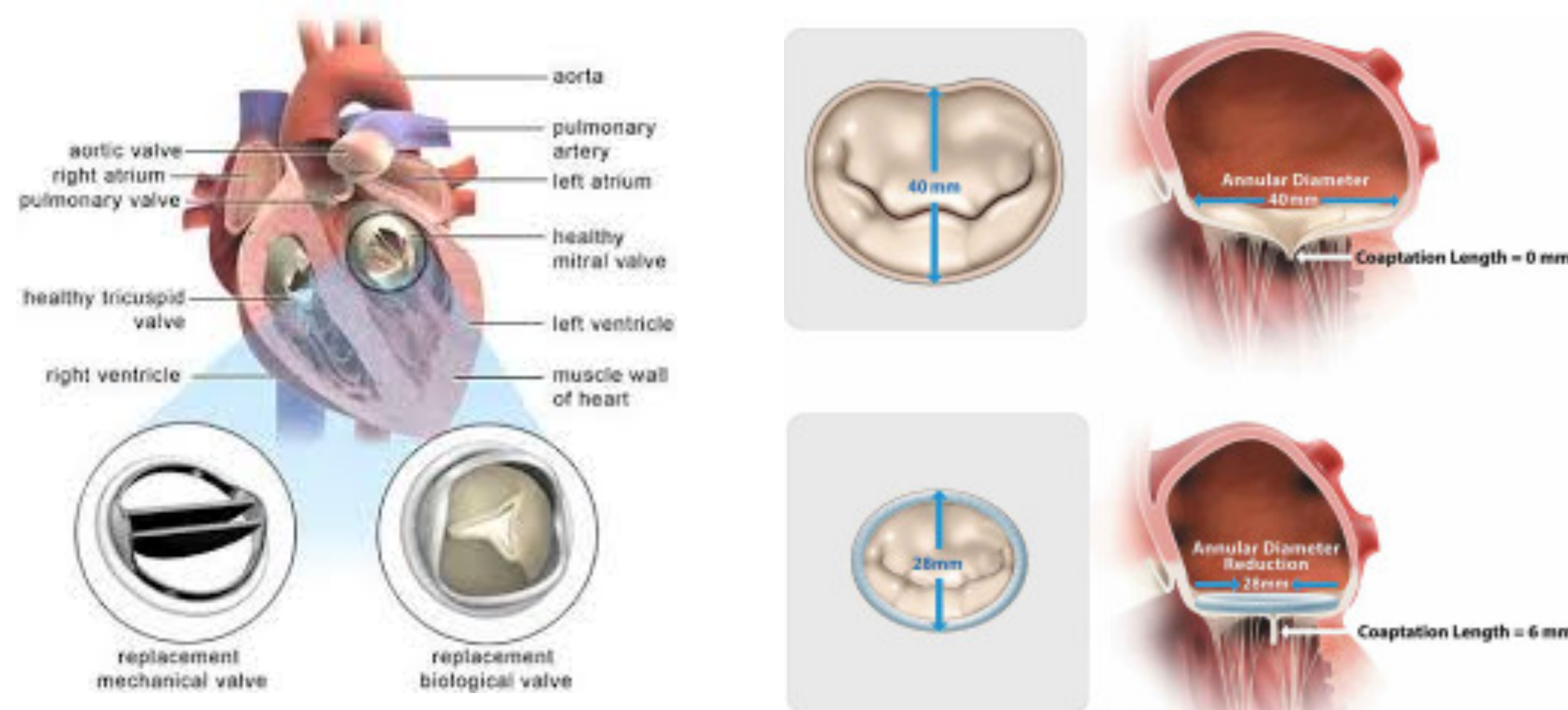


Introduction and Methods

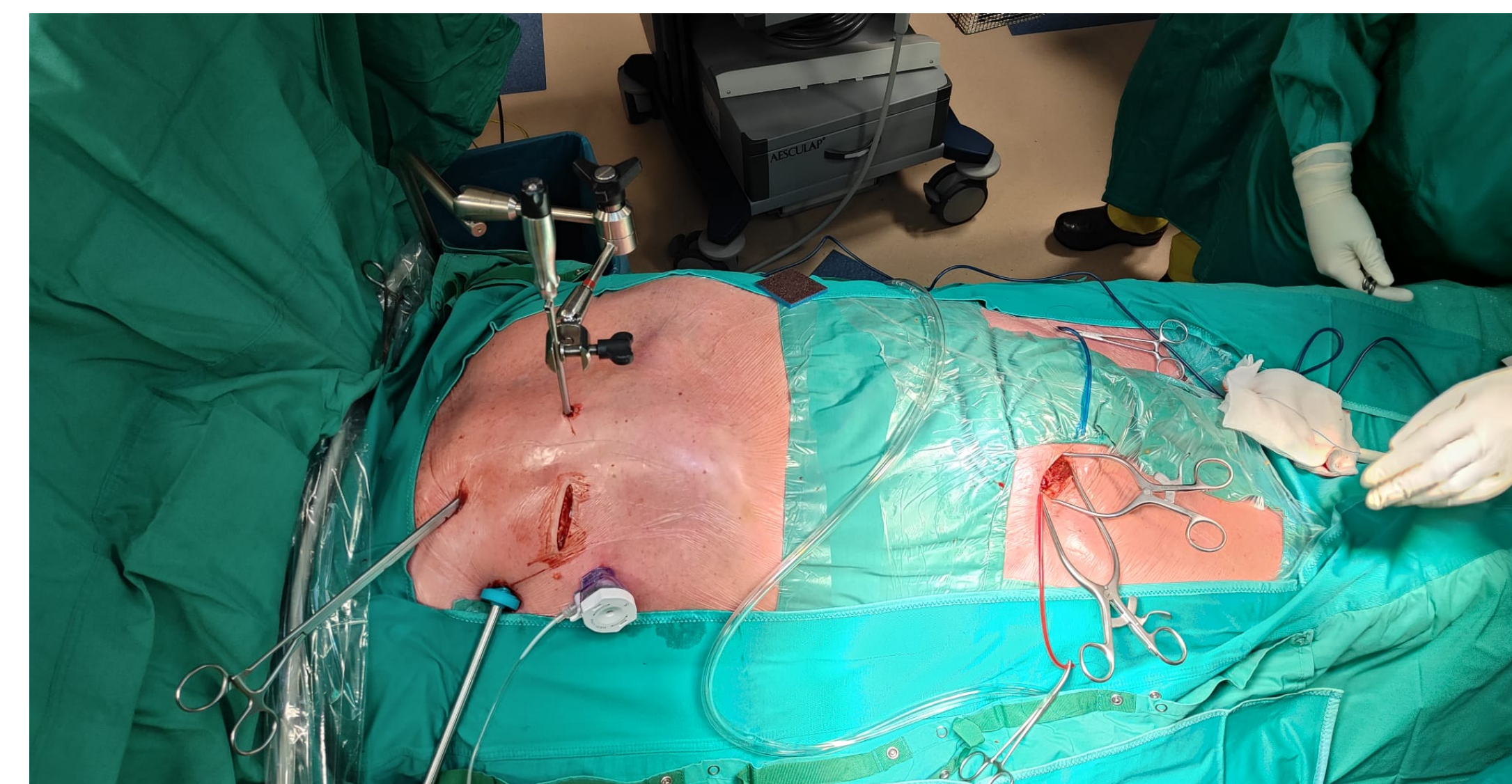
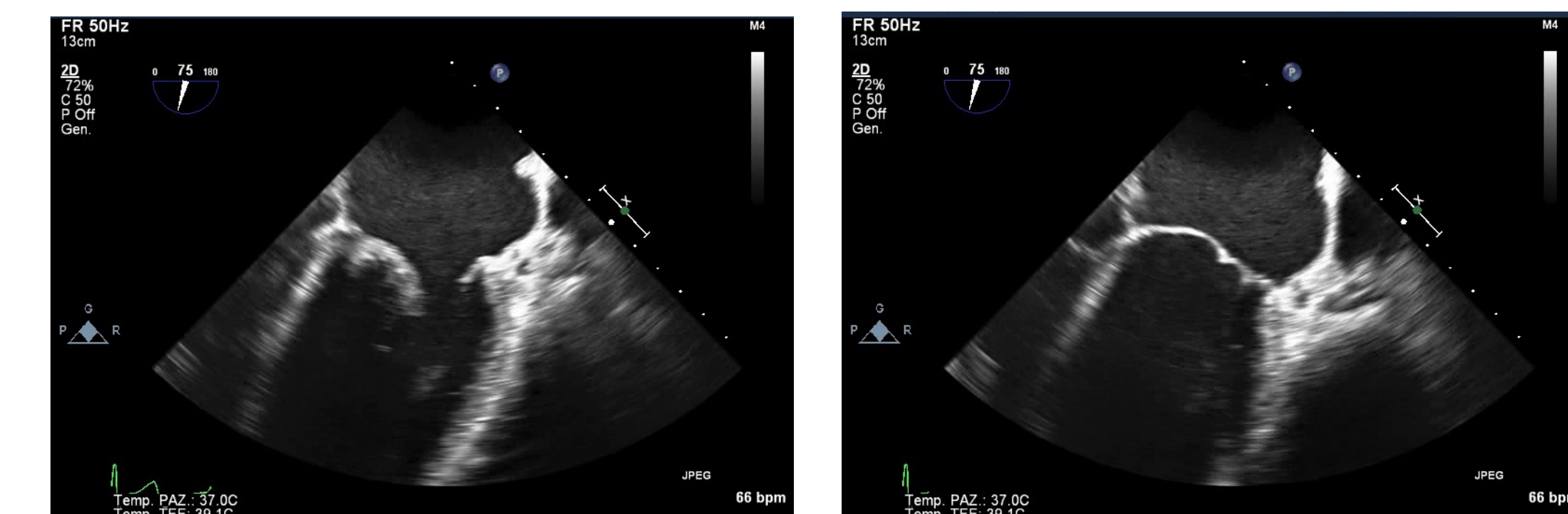
Mitral valve posterior leaflet hypoplasia is a relatively rare and often congenital malformation. In this condition, achieving a good and durable mitral valve repair still represents a challenge for surgeons.

Surgical treatment generally consists in mitral valve replacement or restrictive annuloplasty



In our experience, restrictive annuloplasty isn't the optimal treatment for hypoplastic mitral valve posterior leaflet because it lowers the already small posterior leaflet, thus reducing the coaptation surface.

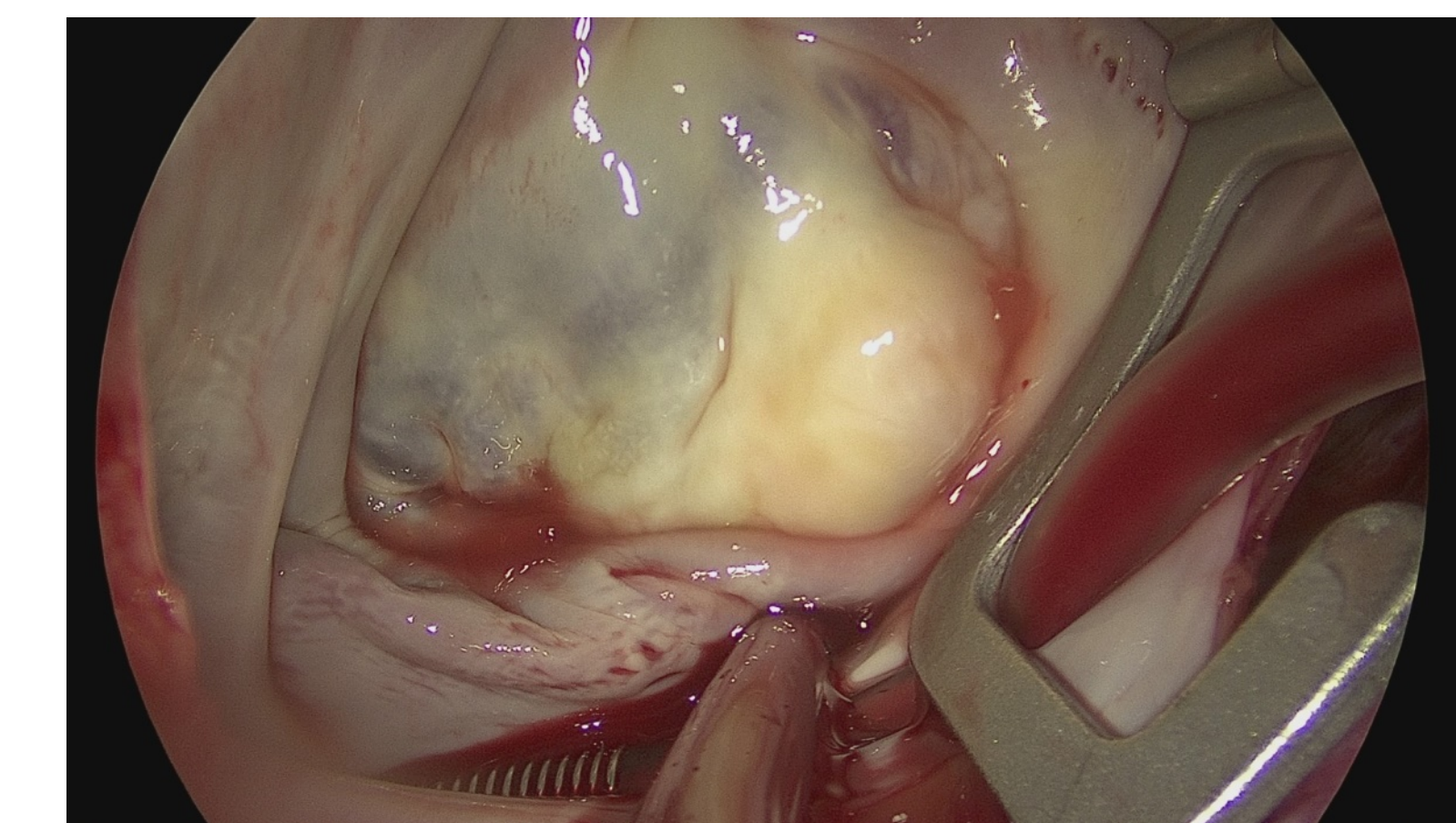
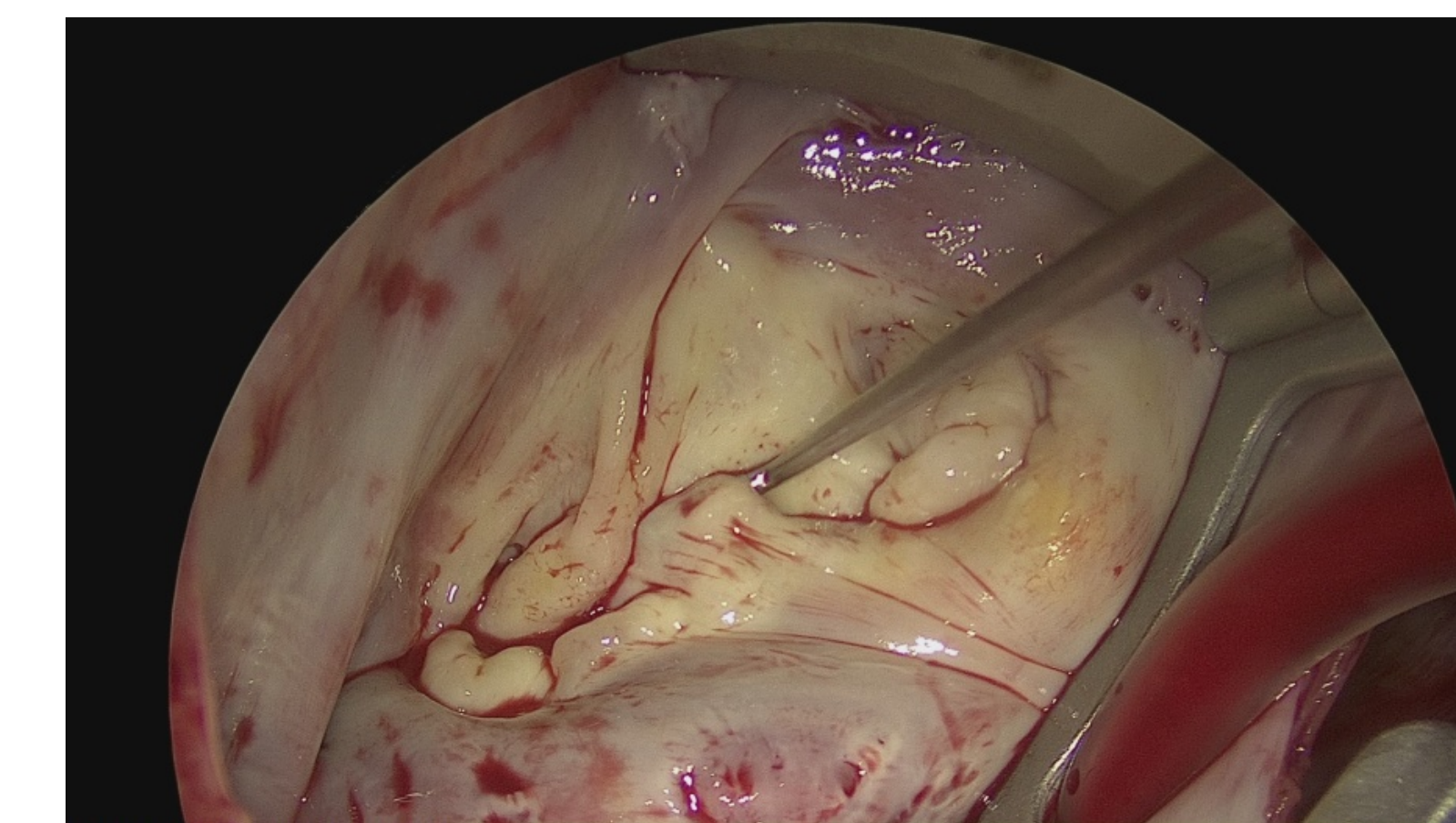
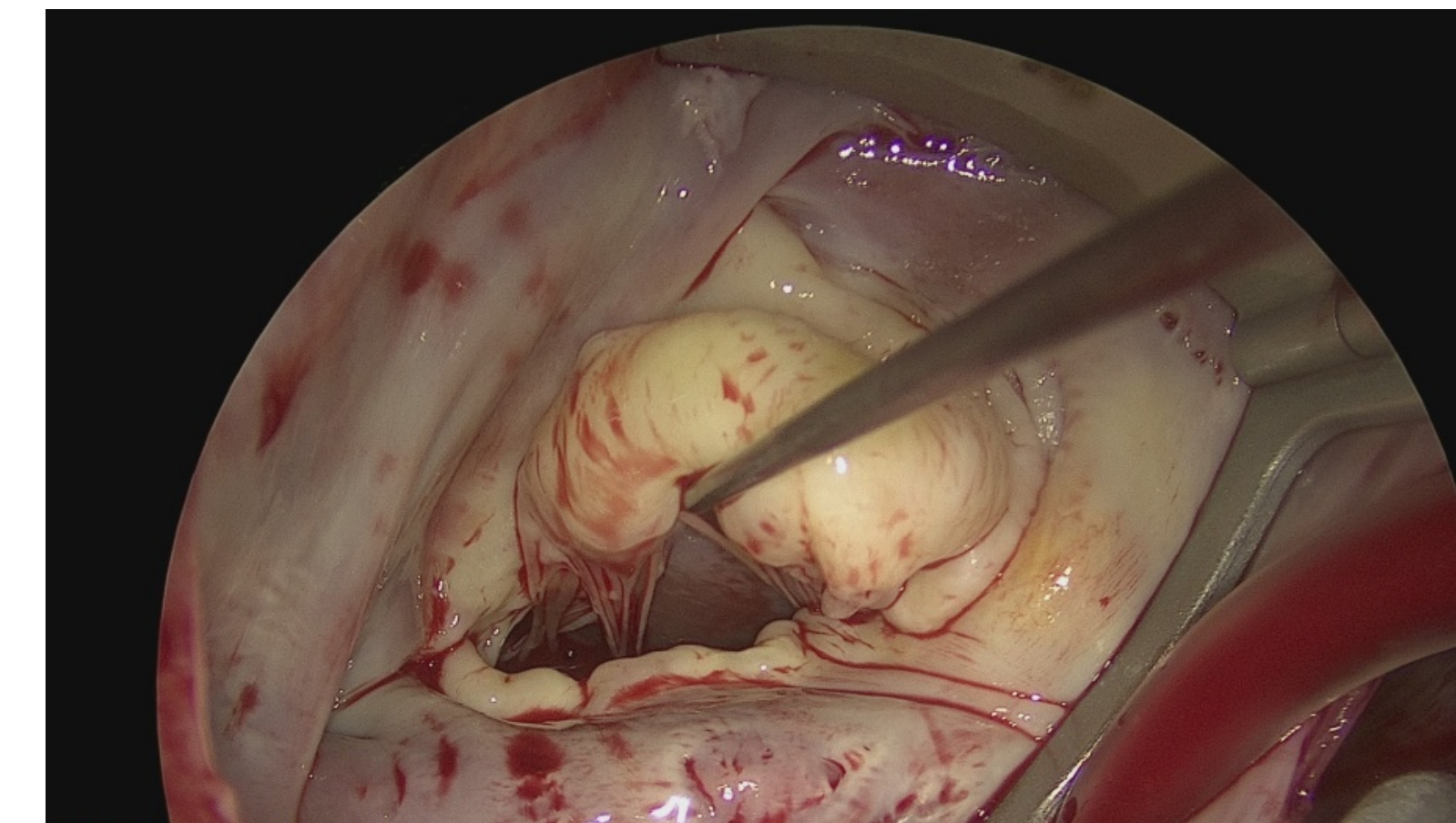
We present the case of a 43 years old man with exertional dyspnoea due to severe mitral regurgitation. Transthoracic and transesophageal echocardiograms revealed a severe **hypoplasia of the posterior mitral leaflet** with an **significant prolapse of the anterior leaflet** (particularly A2-A3), which determined massive regurgitation. The anteroposterior annular diameter was 38 mm with a 4 mm mitro-annular disjunction, left ventricular telediastolic diameter was 59 mm and ejection fraction 68%.



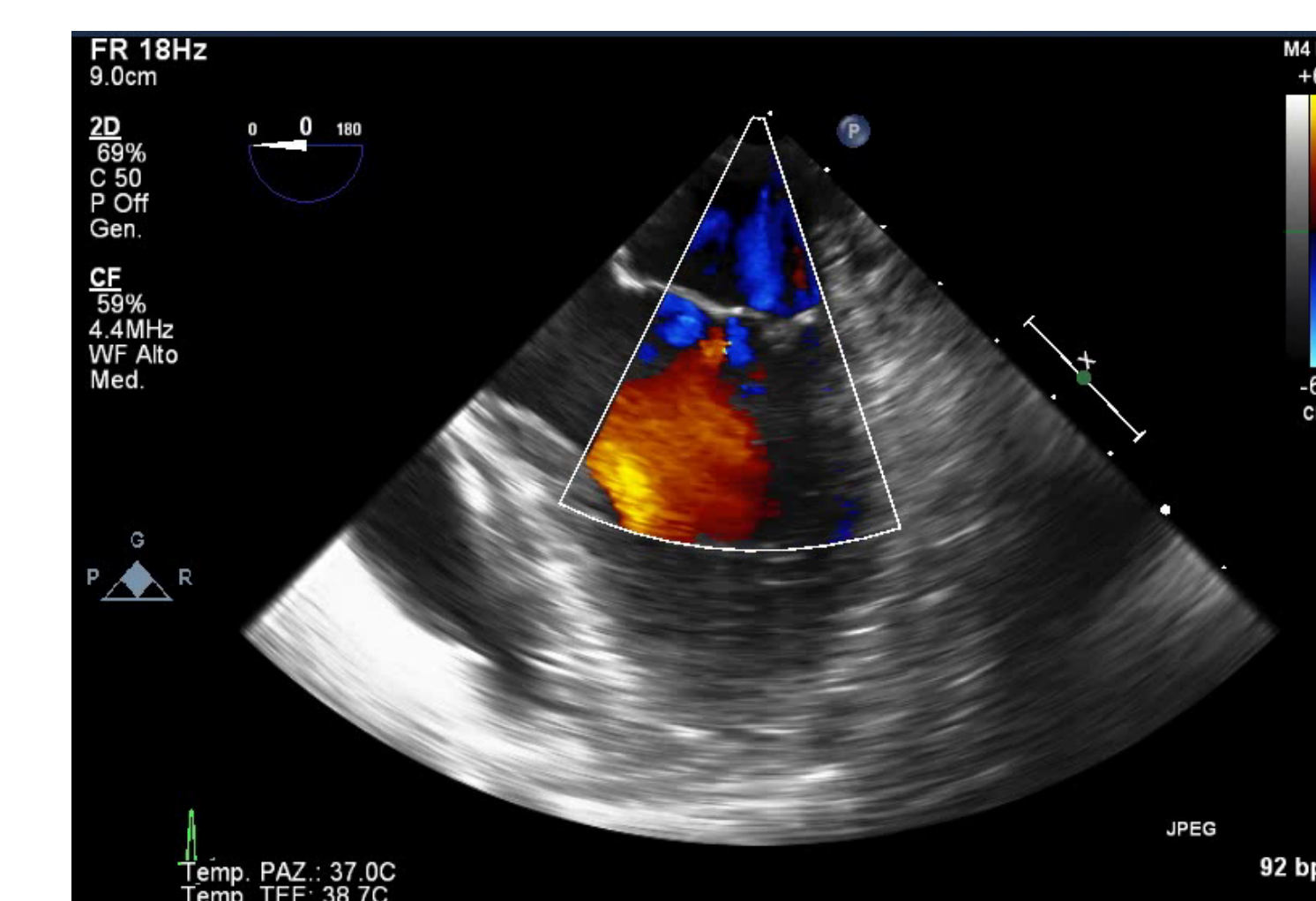
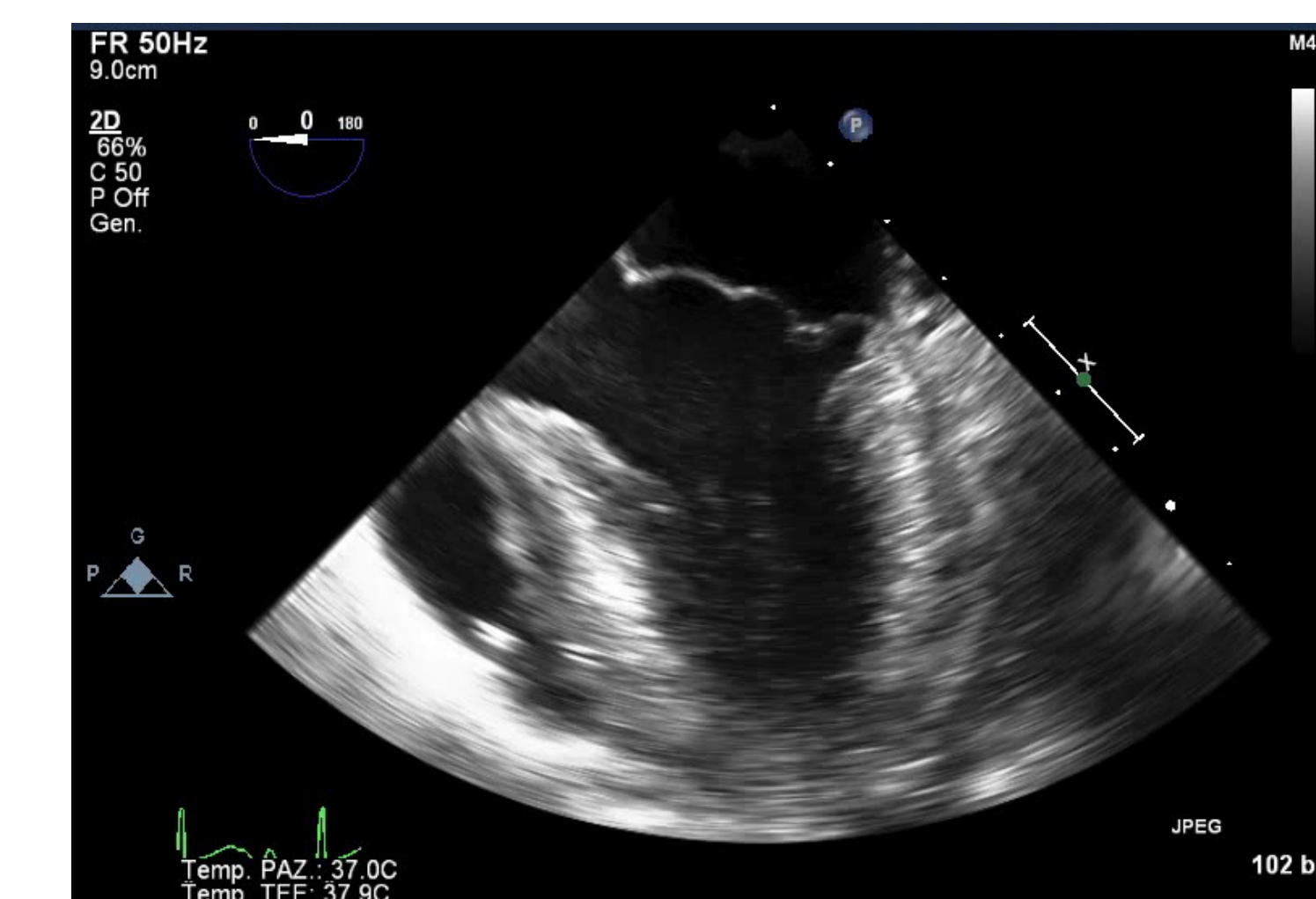
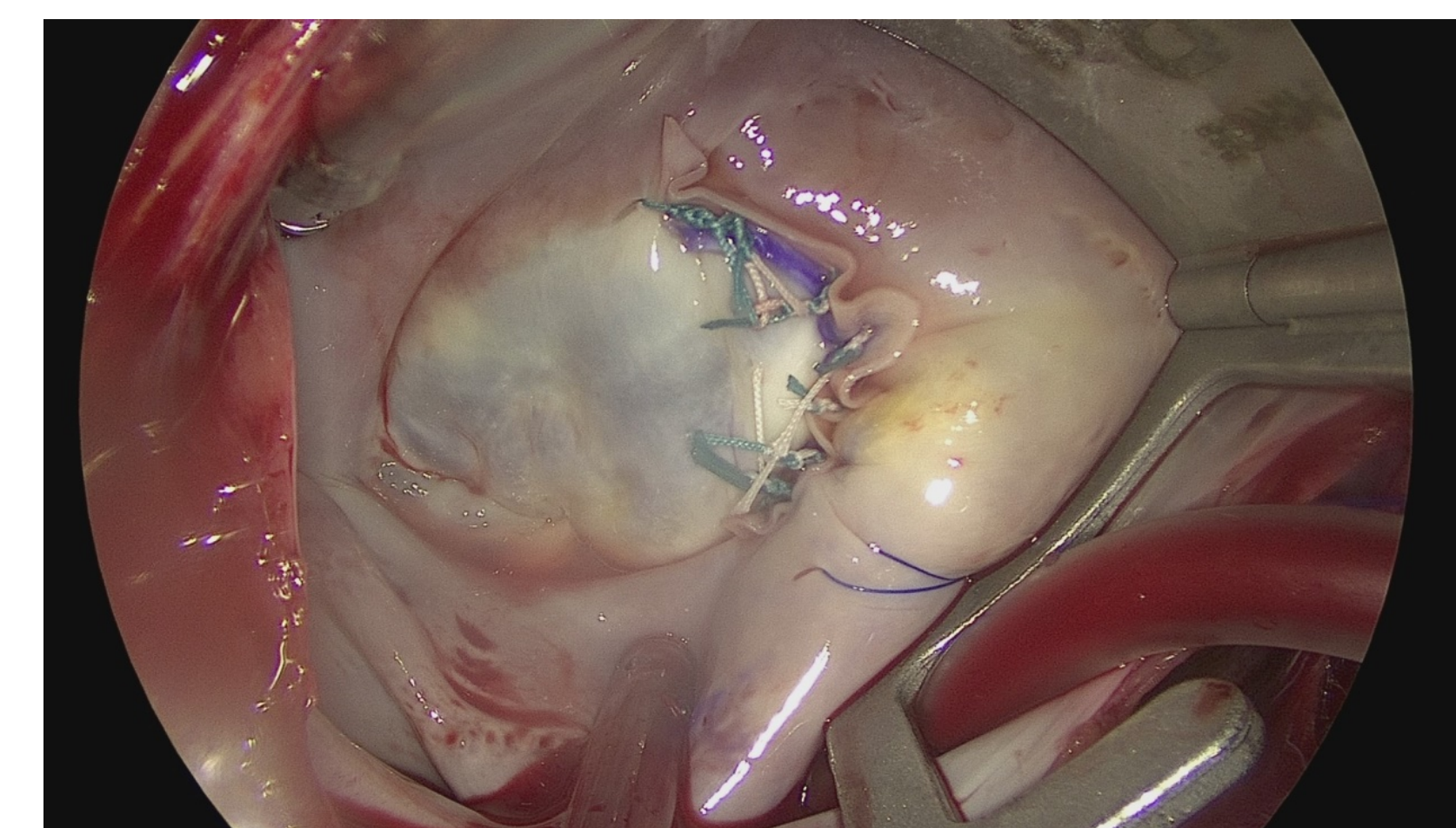
Surgery was performed through a right mini-thoracotomy,

Results

Surgical inspection revealed a severely hypoplastic posterior leaflet and a wide anterior leaflet prolapsing near the postero-medial commissure (A2-A3)



Mitral valve repair was achieved performing a **posterior para-commissural edge-to-edge (A3-P3)** followed by an **atypical annuloplasty** using a bovine pericardium band, shaped on a 40 mm ring sizer, only in the postero-medial portion of the mitral annulus. On the hydrostatic test, the valve showed a satisfactory continence, that was confirmed on the intraoperative TEE.



Conclusions

In our experience, reductive annuloplasty isn't the optimal treatment for hypoplastic mitral valve posterior leaflet. Our surgical technique consists in an atypical annuloplasty using bovine pericardium only in the pathological portion of the mitral annulus. It appears to be effective and reproducible in this clinical conditions and grants good in-hospital results with no residual regurgitation