

STS/EACTS Latin America Cardiovascular Surgery Conference

November 15-17, 2018

Hilton Cartagena | Cartagena, Colombia



Basic Principles of Mitral Valve Repair in the Young



Basic Principles of Mitral Valve Repair in the Young

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Boston Children's Hospital

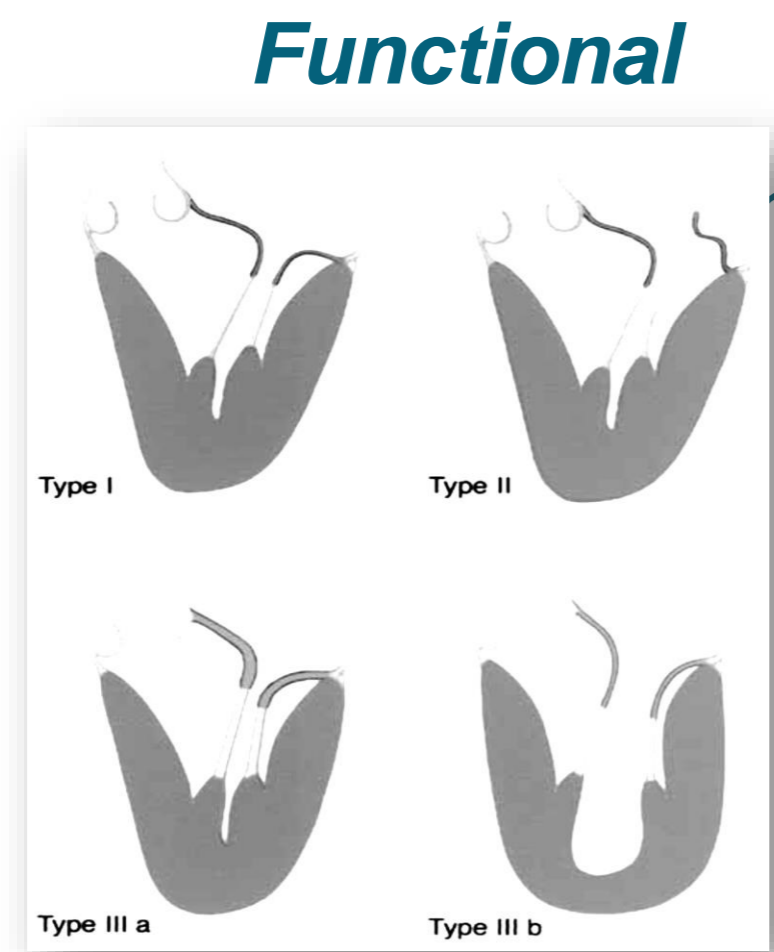
Harvard Medical School



No disclosures



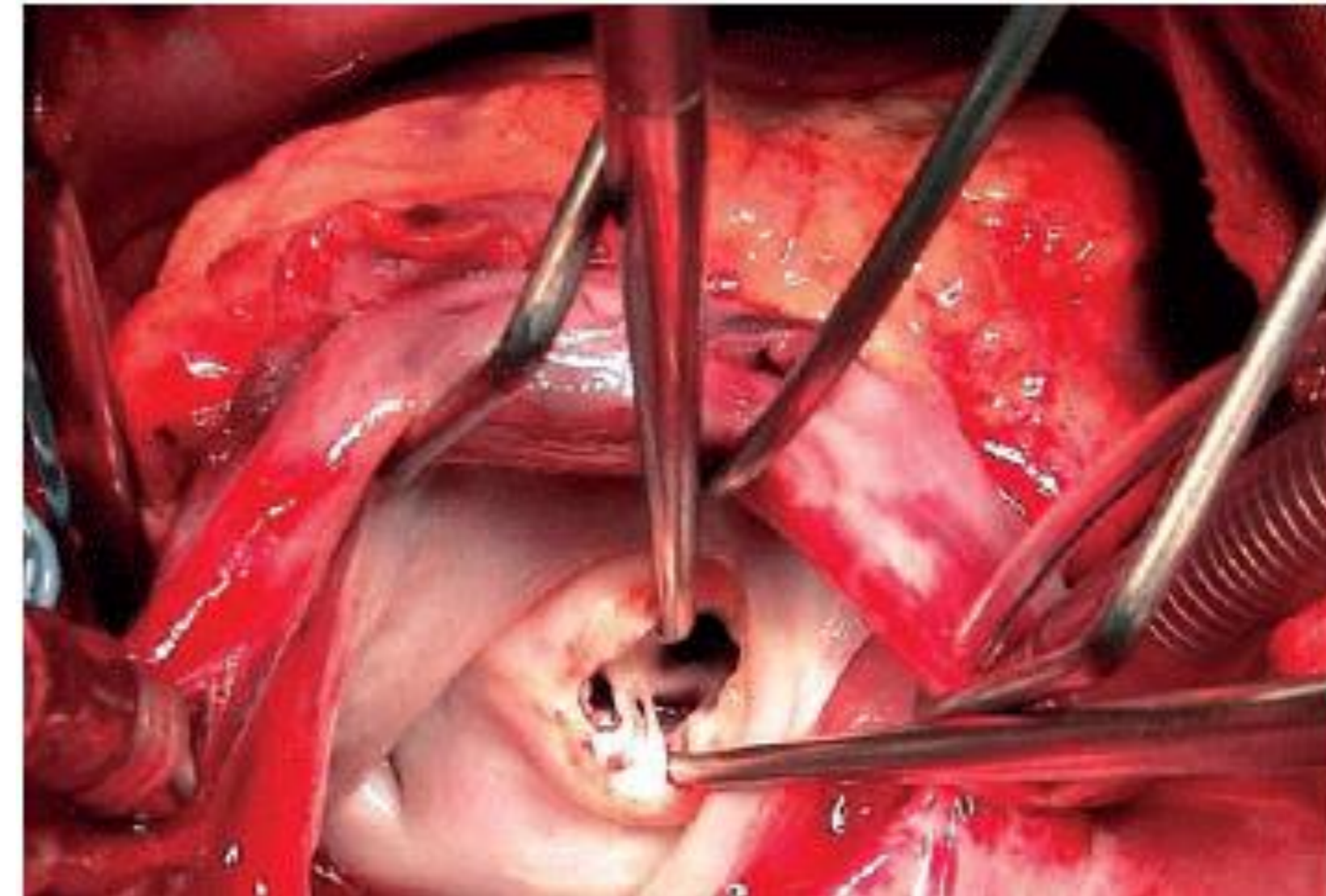
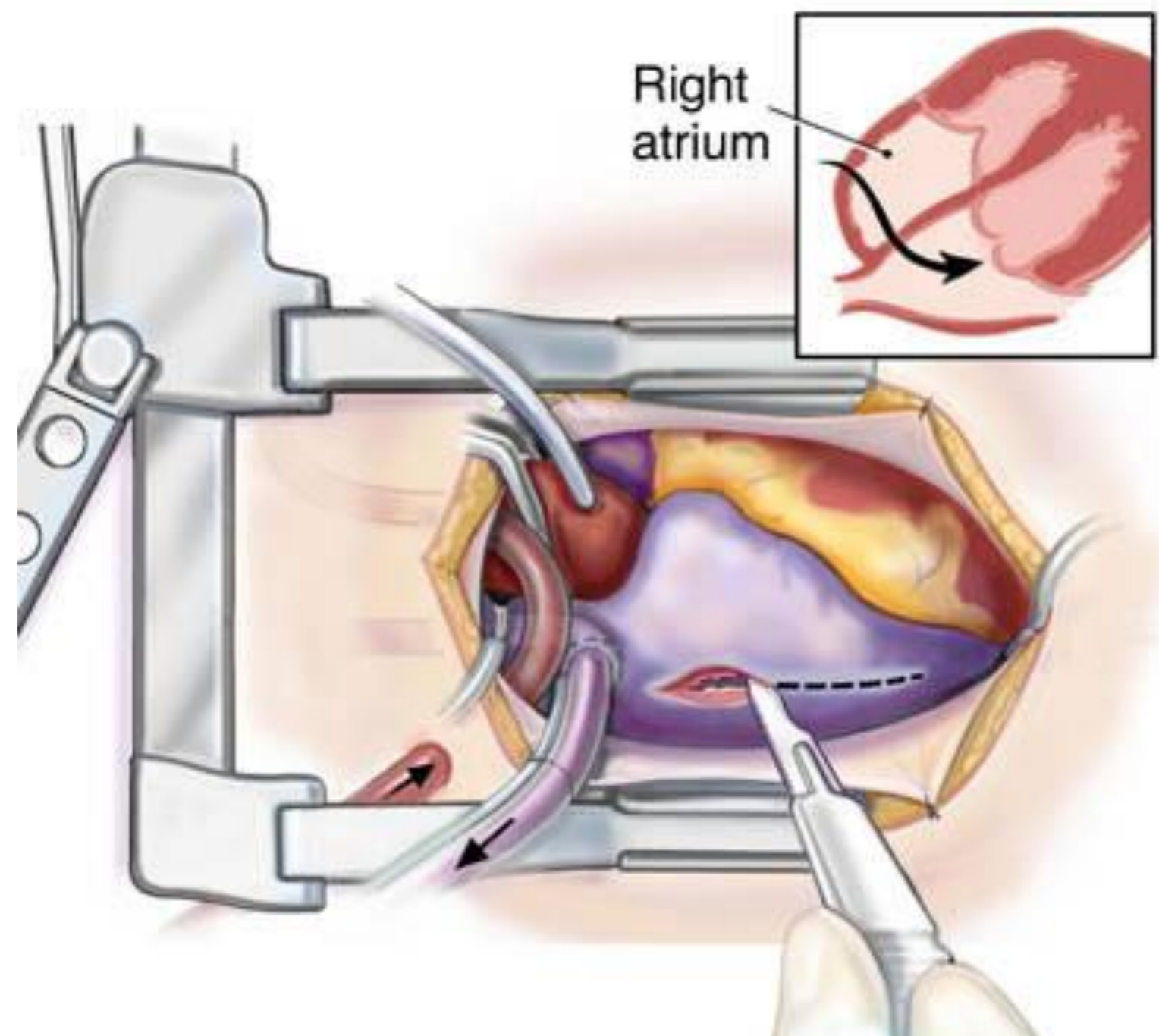
Congenital Mitral Disease: Classification



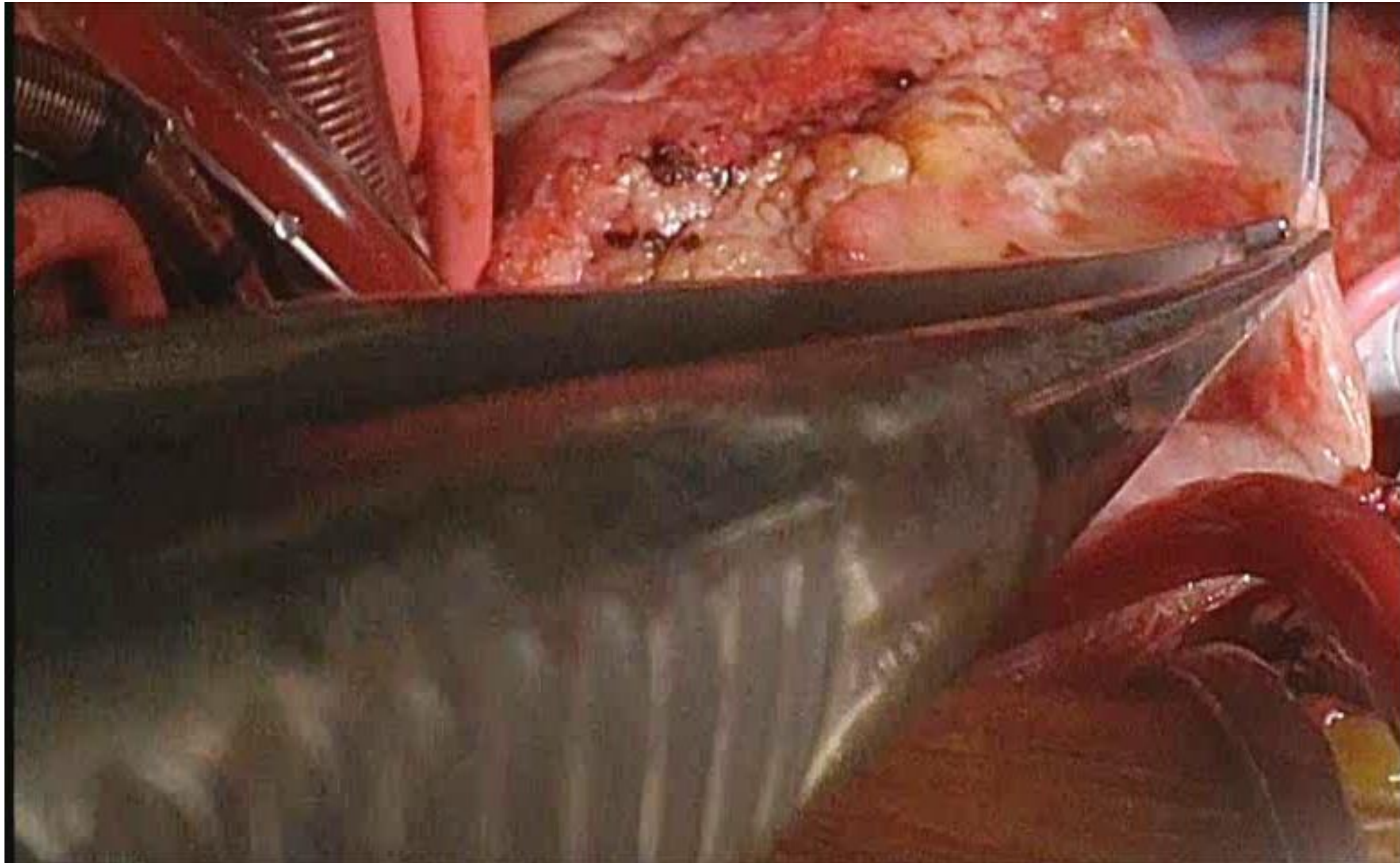
Pathologic and Functional Assessment

- **Annulus** – small vs. restricted
 - Supra intra-annular fibro-elastic ring
- **Leaflets**
 - Restricted mobility:
 - Intra-leaflet thickening vs. deficiency
 - Hypermobility (prolapse):
 - Excess tissue vs. chordal elongation or lack of chordal support
 - Leaflet defects: clefts
- **Sub-valve restriction**
 - Excess fibro-elastic tissue (thickening)
 - Short or matted chords
 - Excess chords/papillary attachments (tethering)

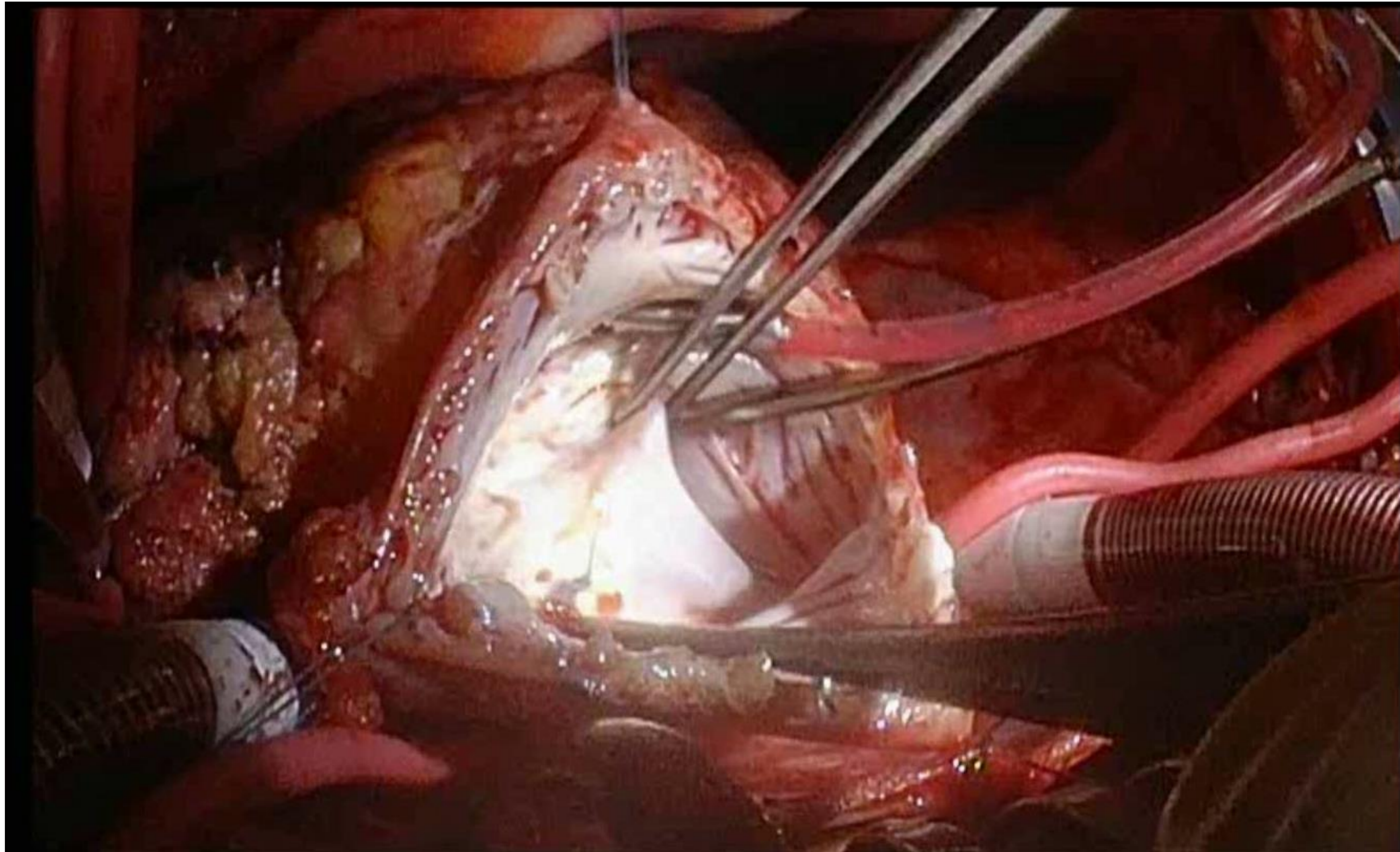
Approach: mini-sternotomy



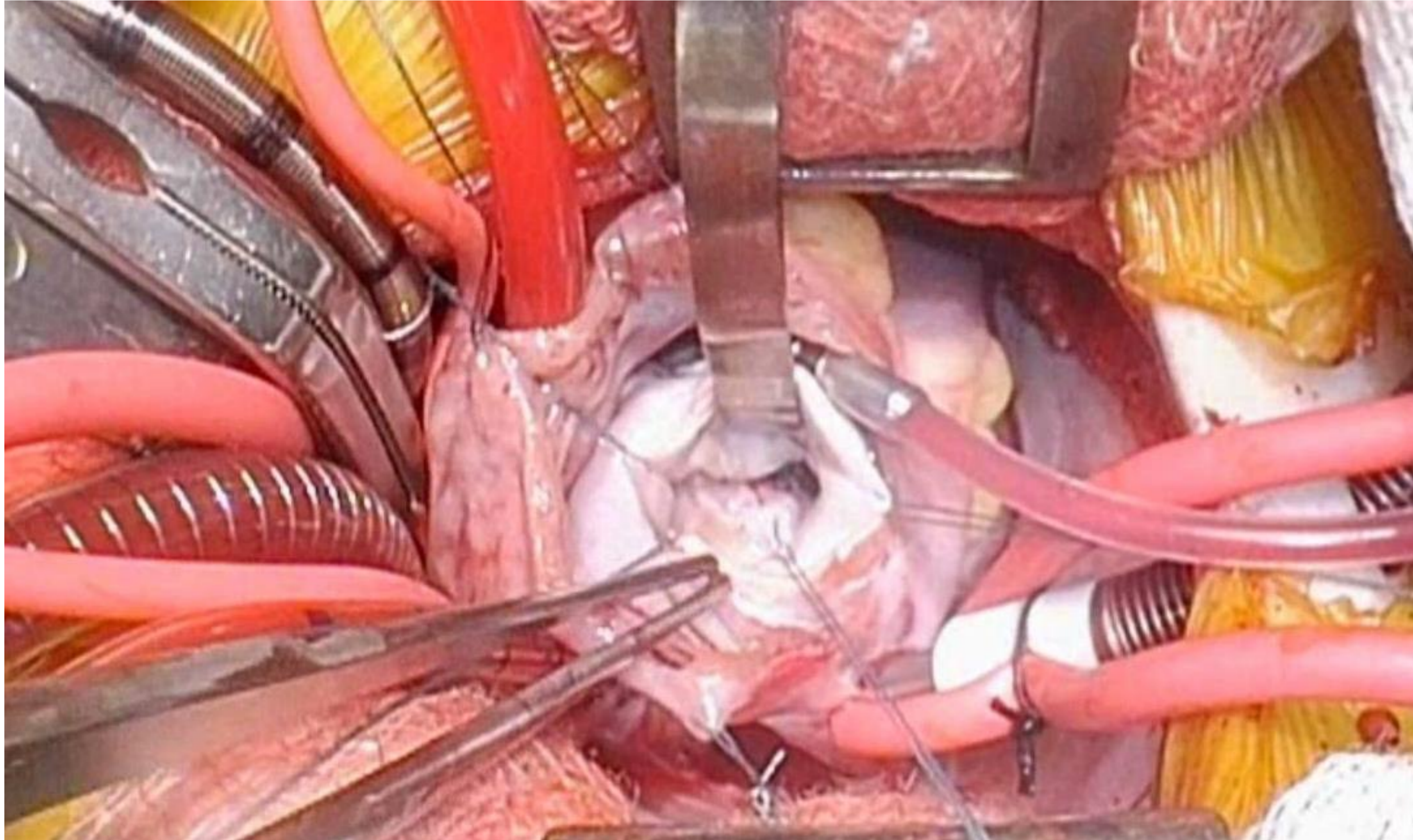
Trans-septal approach: Atriotomy



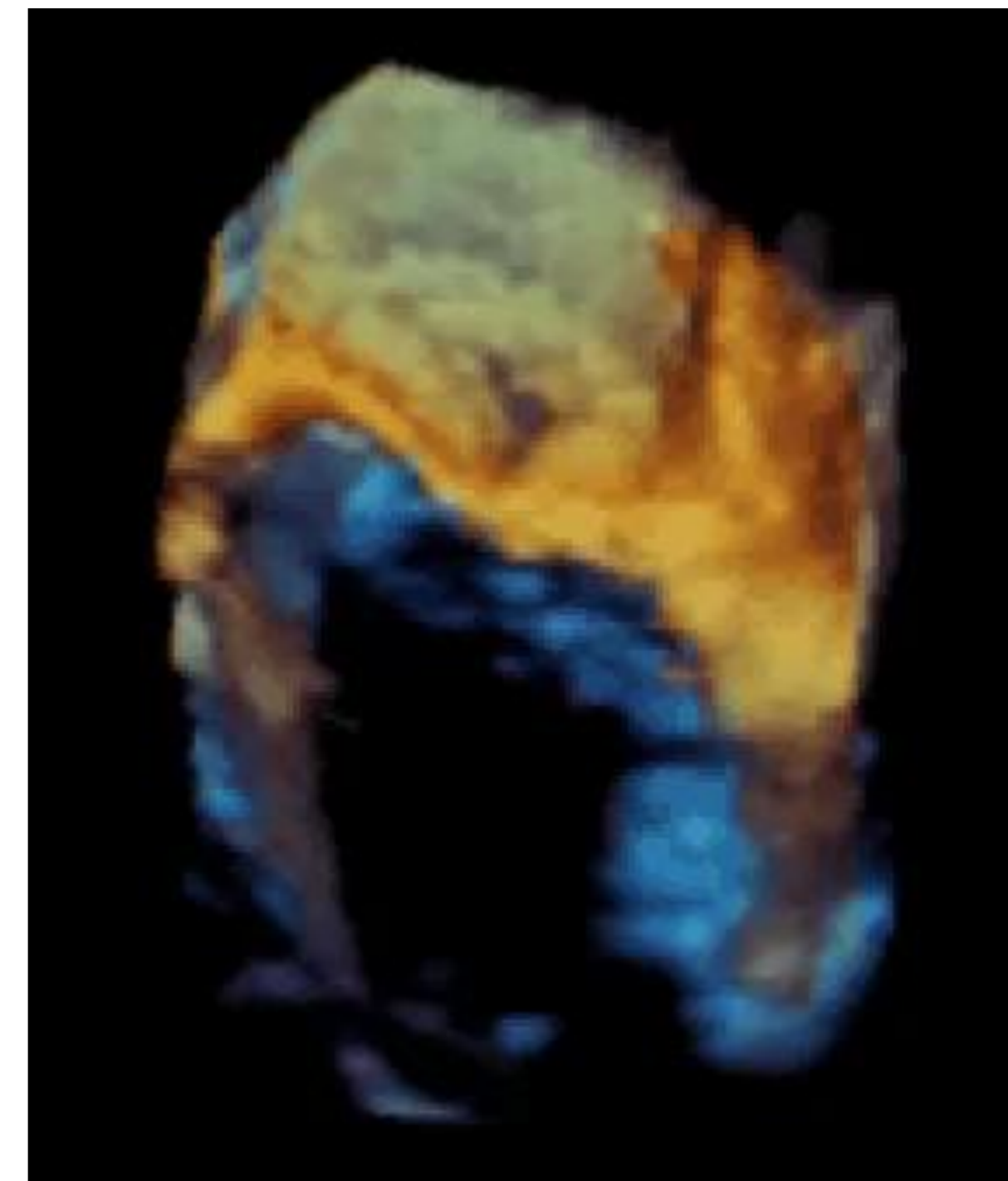
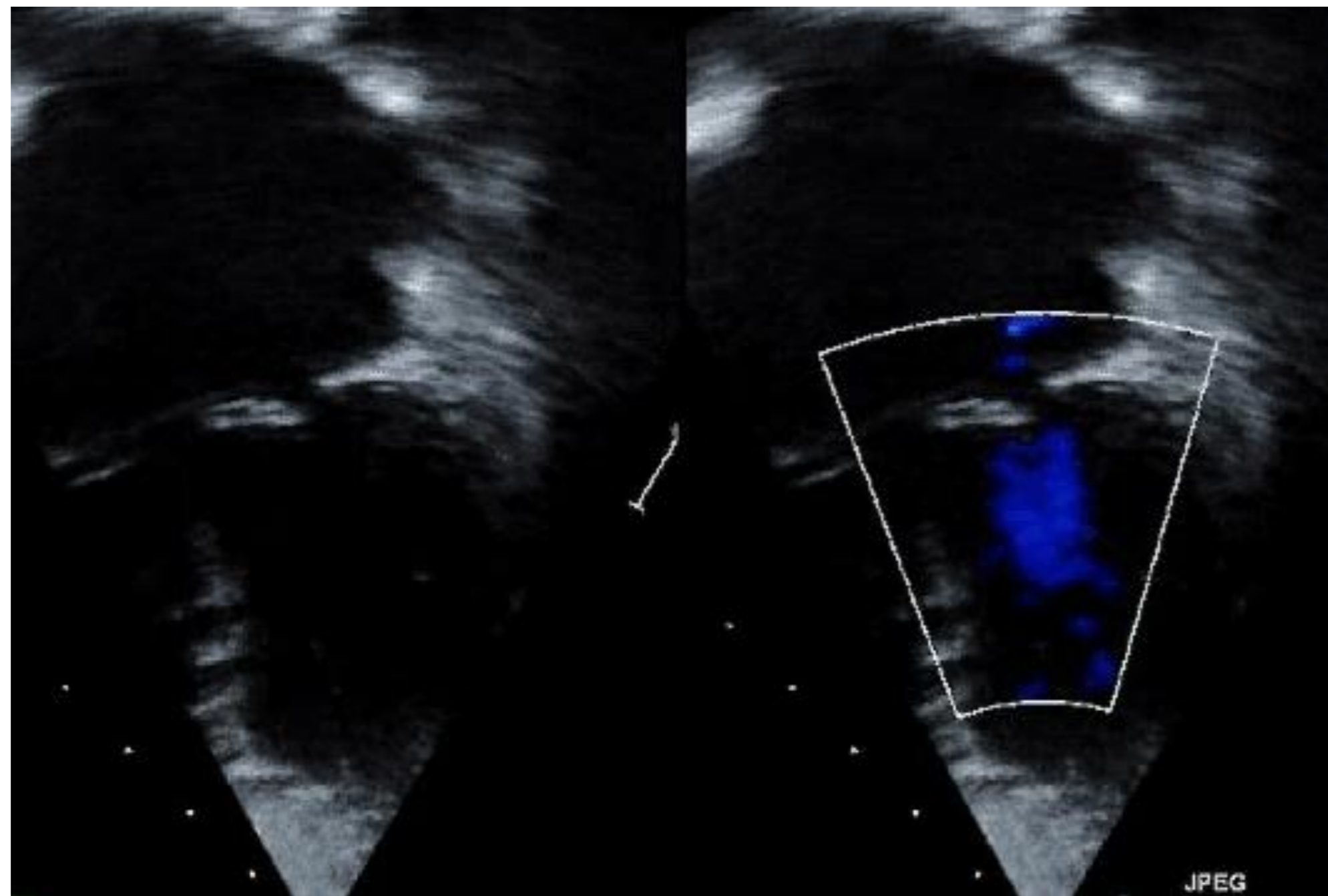
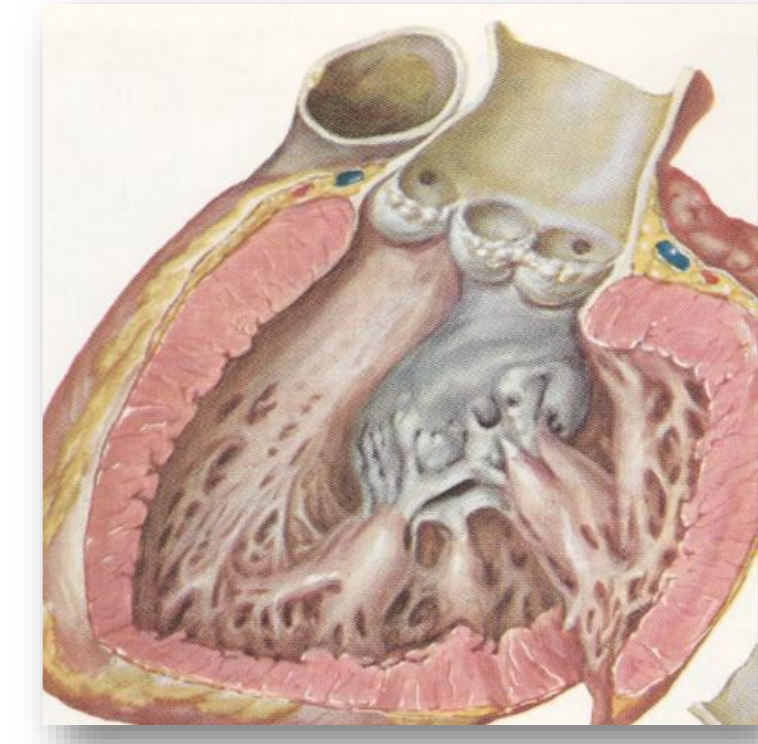
Trans-septal approach: Septostomy



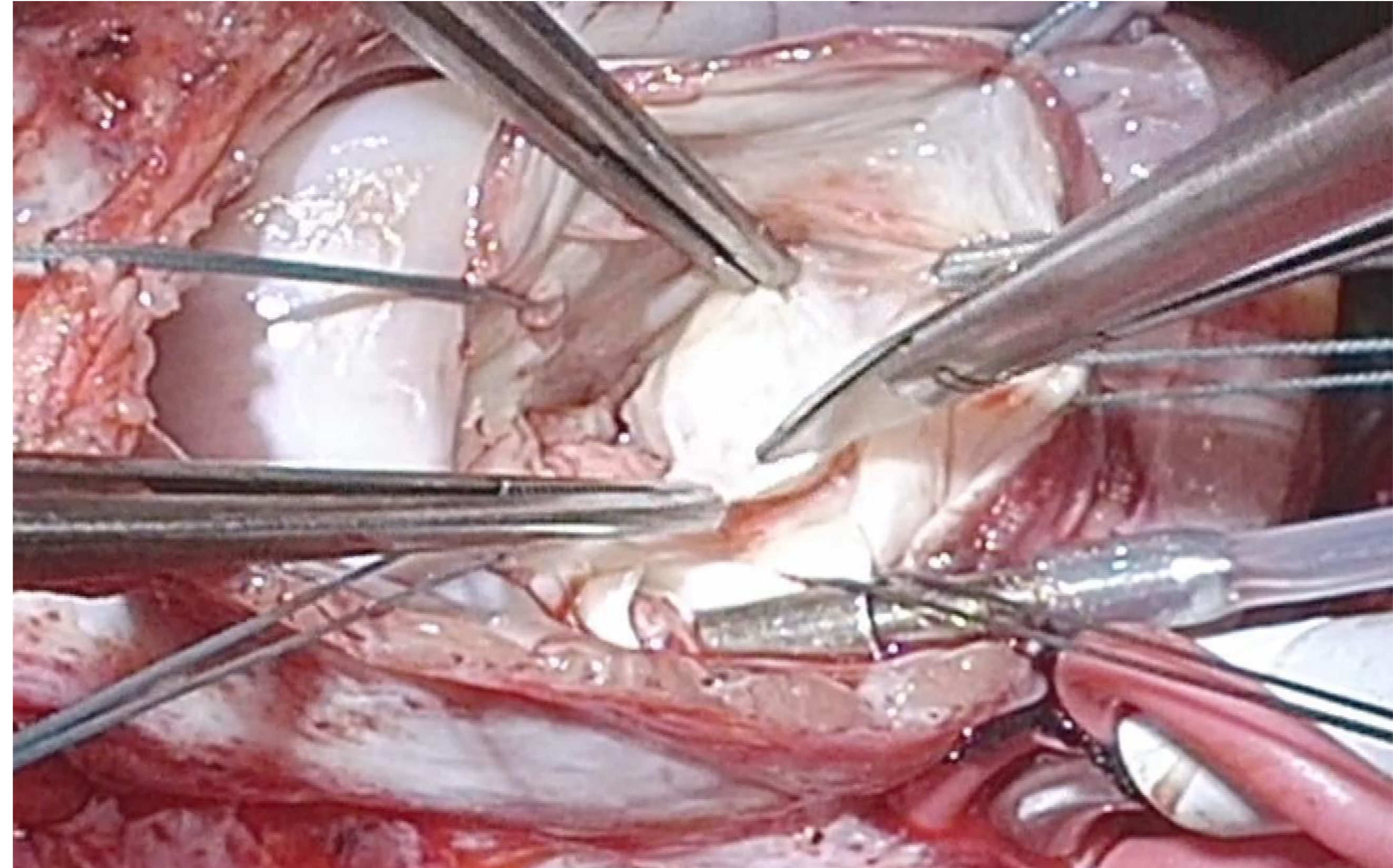
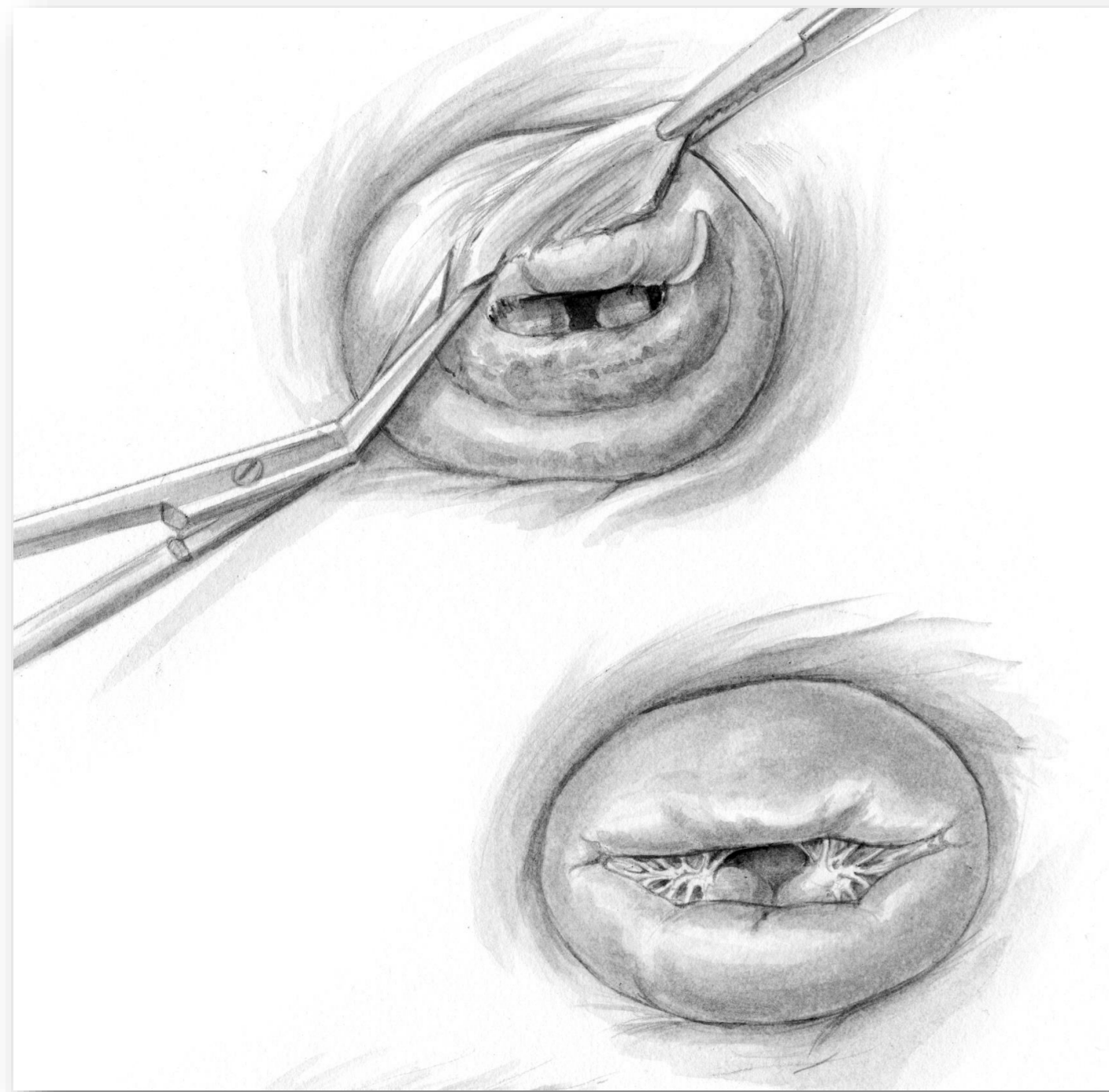
Exposure and Inspection



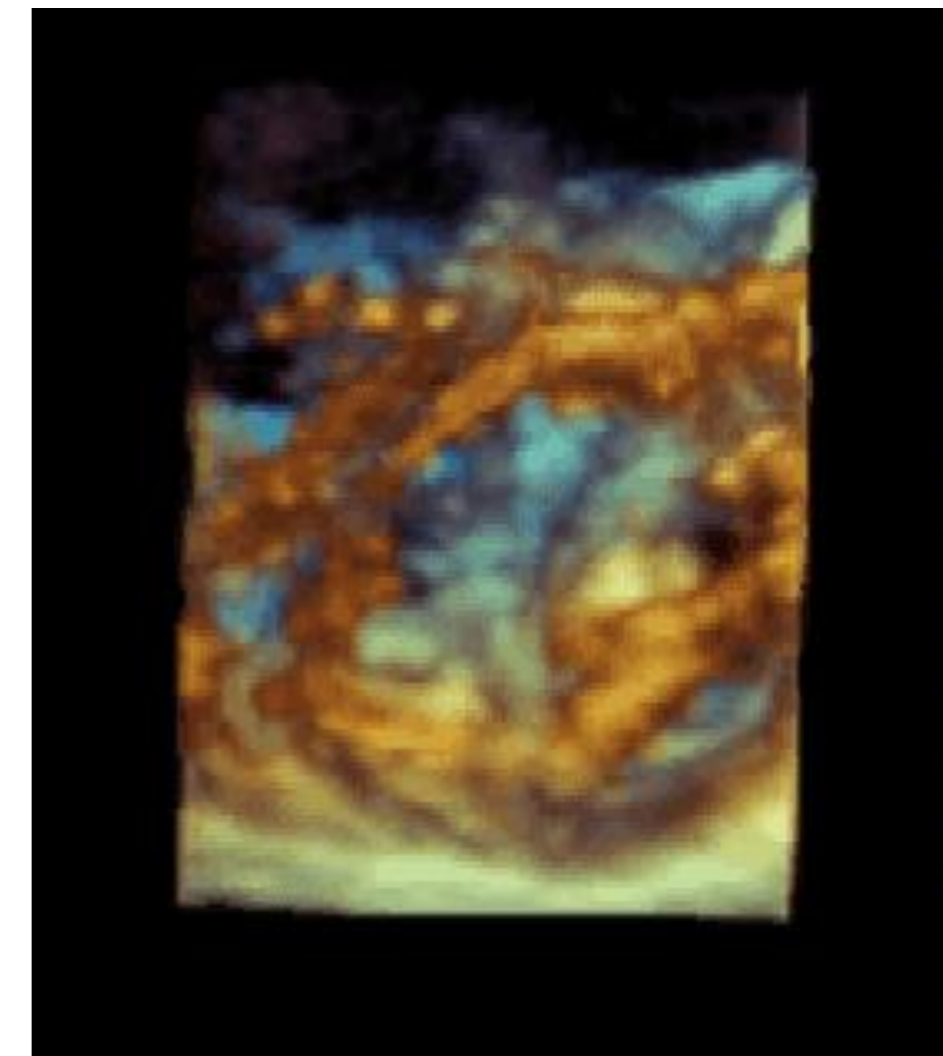
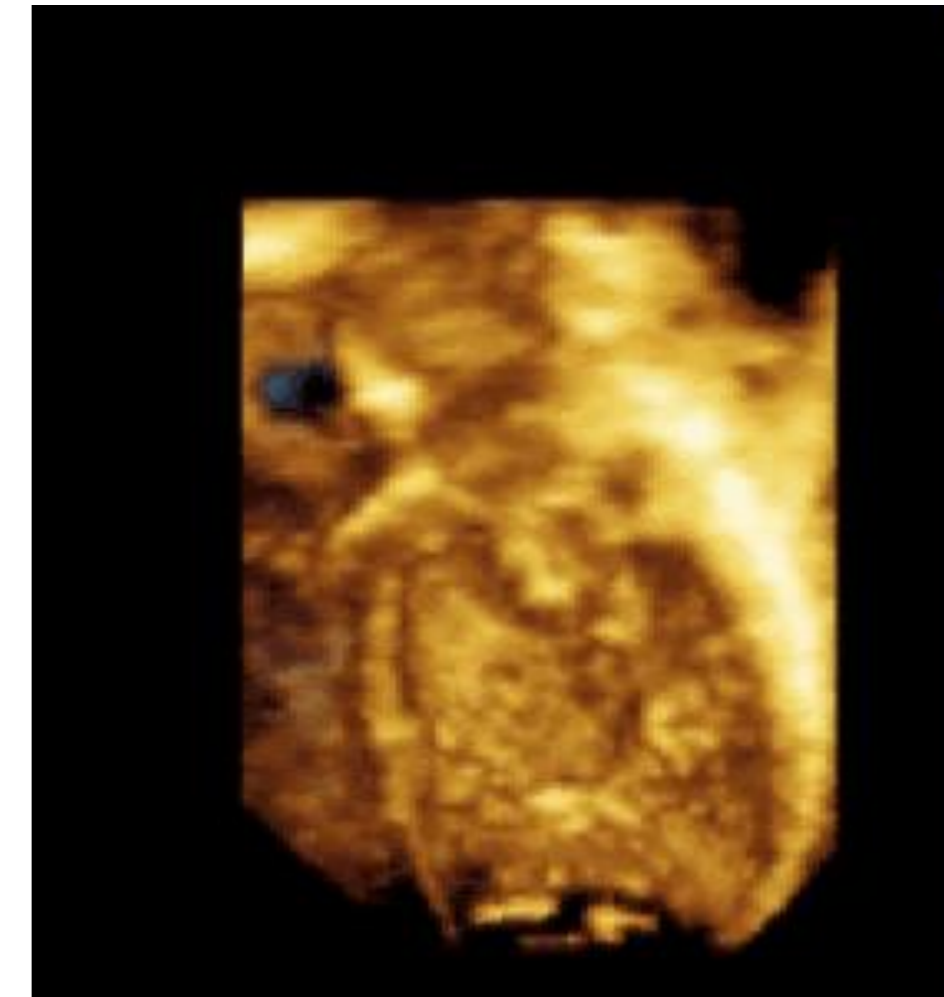
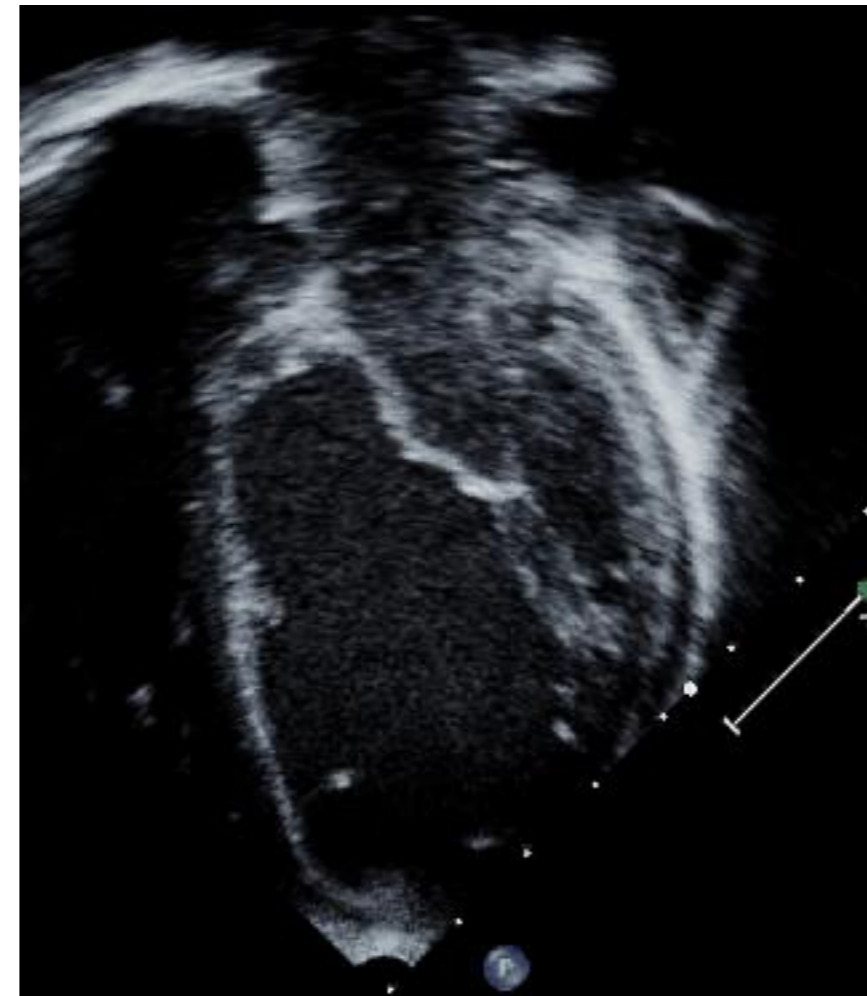
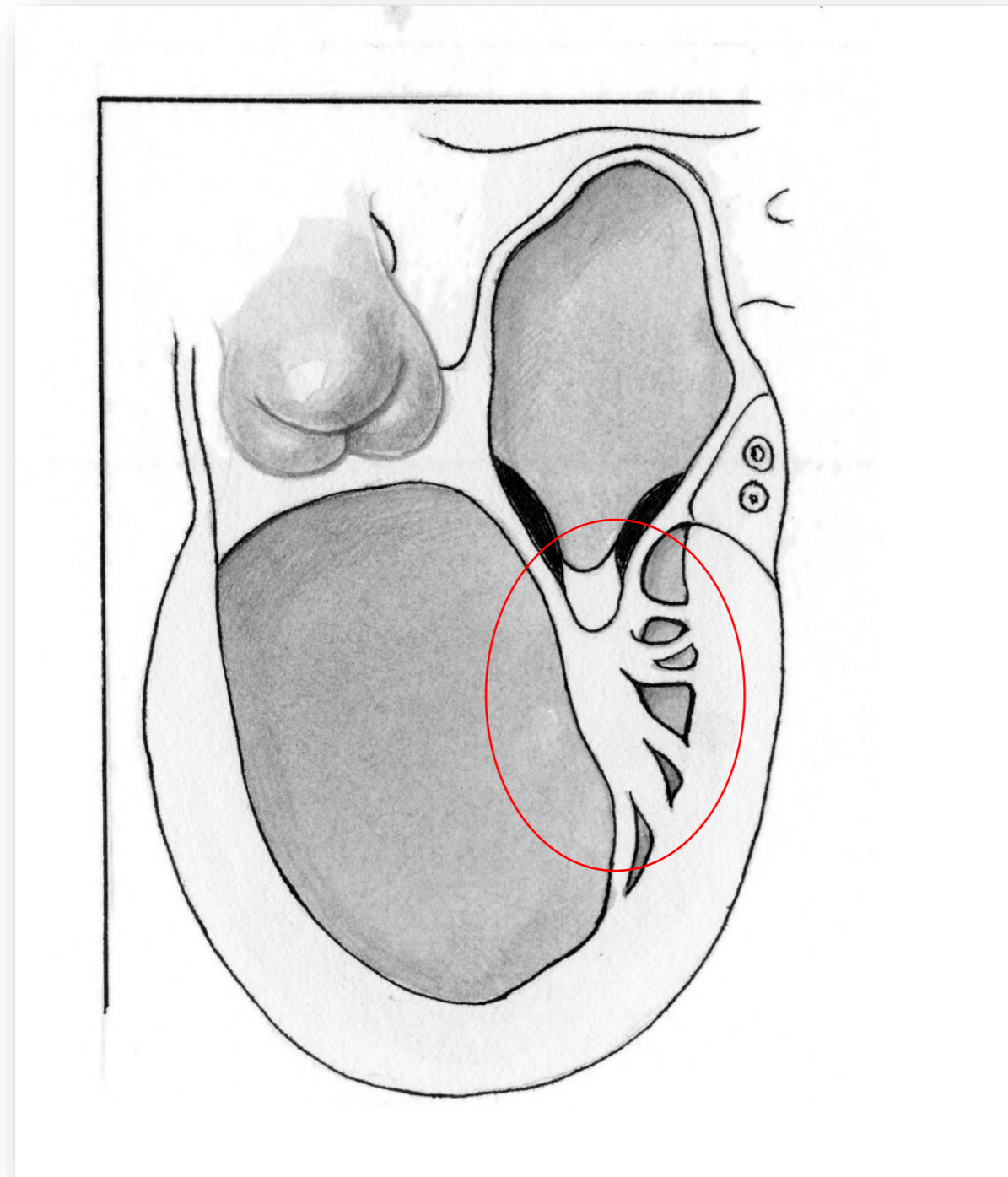
Congenital Mitral Stenosis



Removal of fibro-elastic tissue: annulus and leaflets

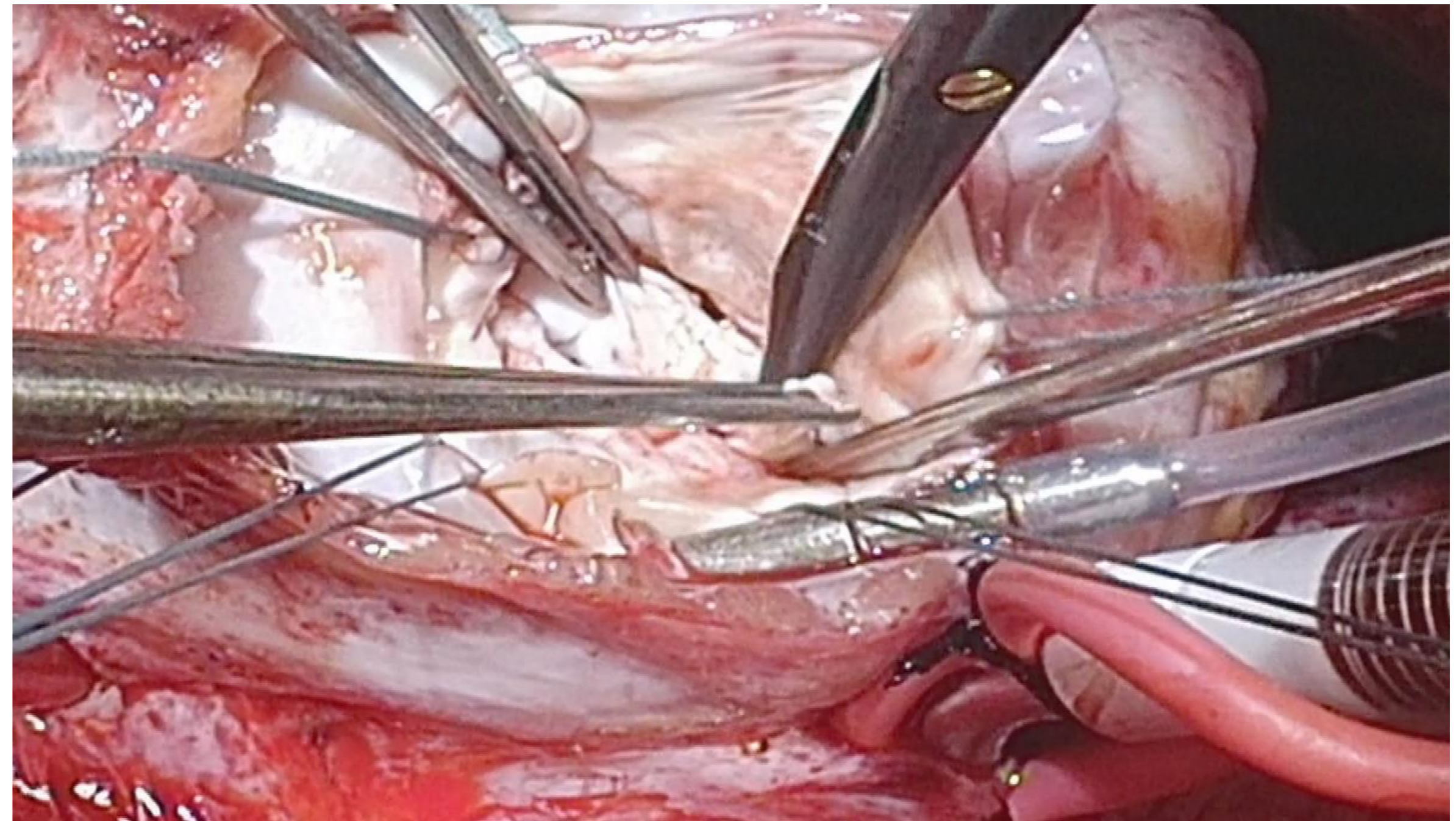
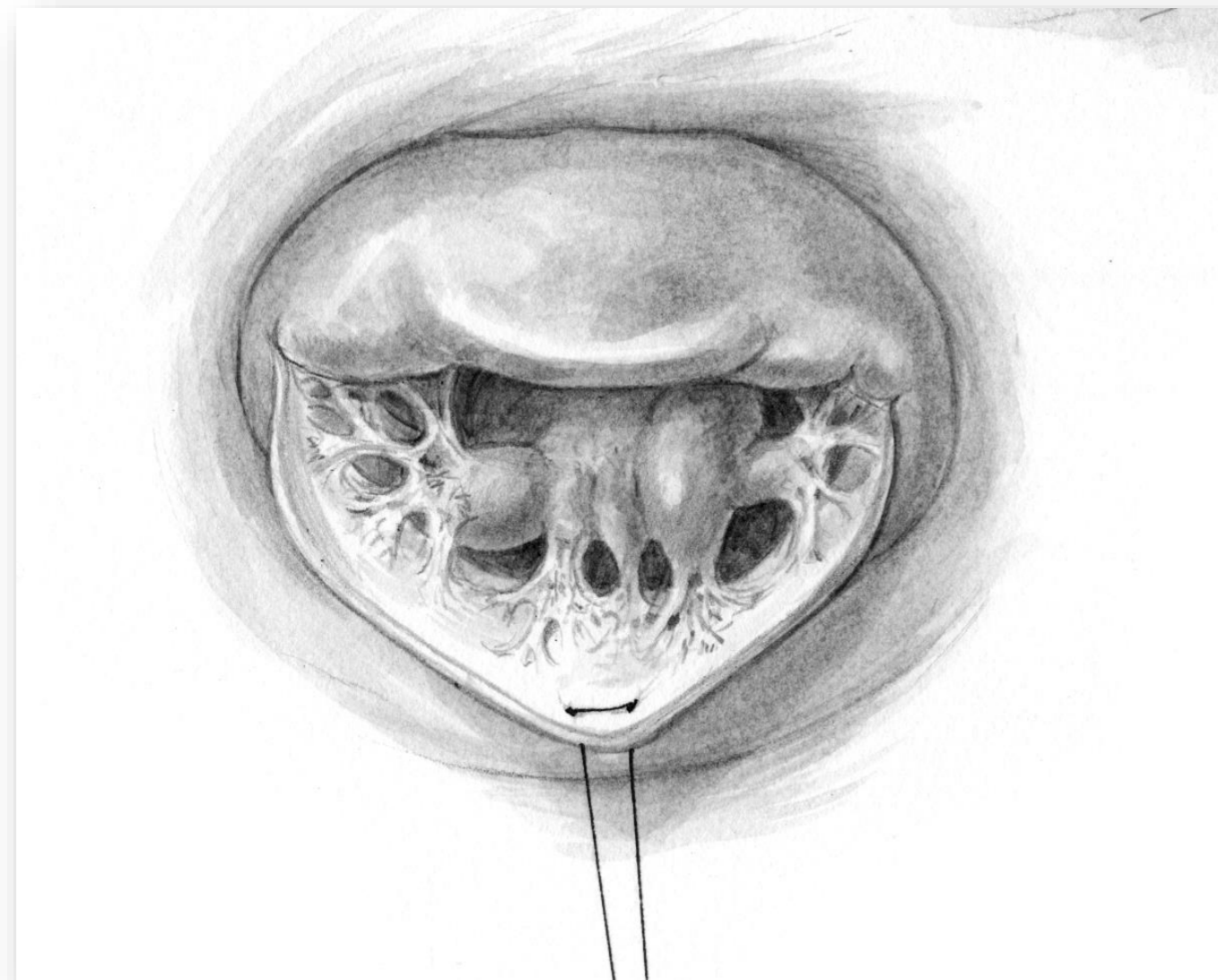
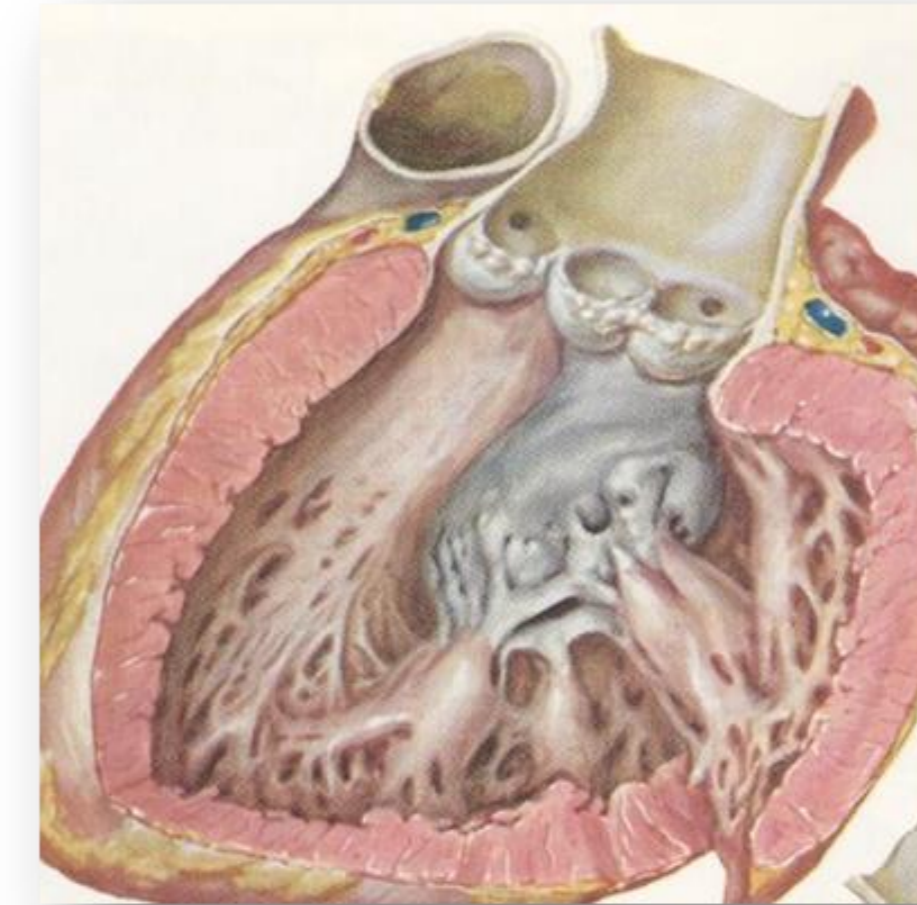


Sub-valvar obstruction

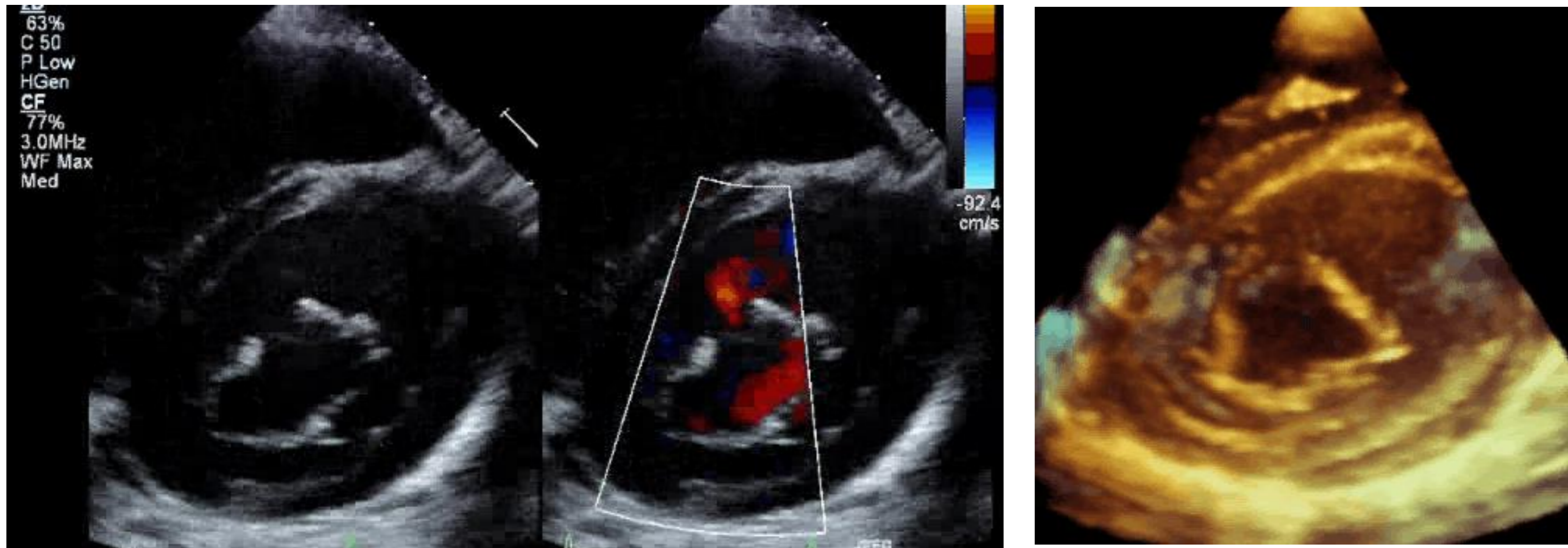


Sub-valvar restriction

- Fibro-elastic tissue
- Short or matted chords
- Excess chords/papillary attachments (tethering)

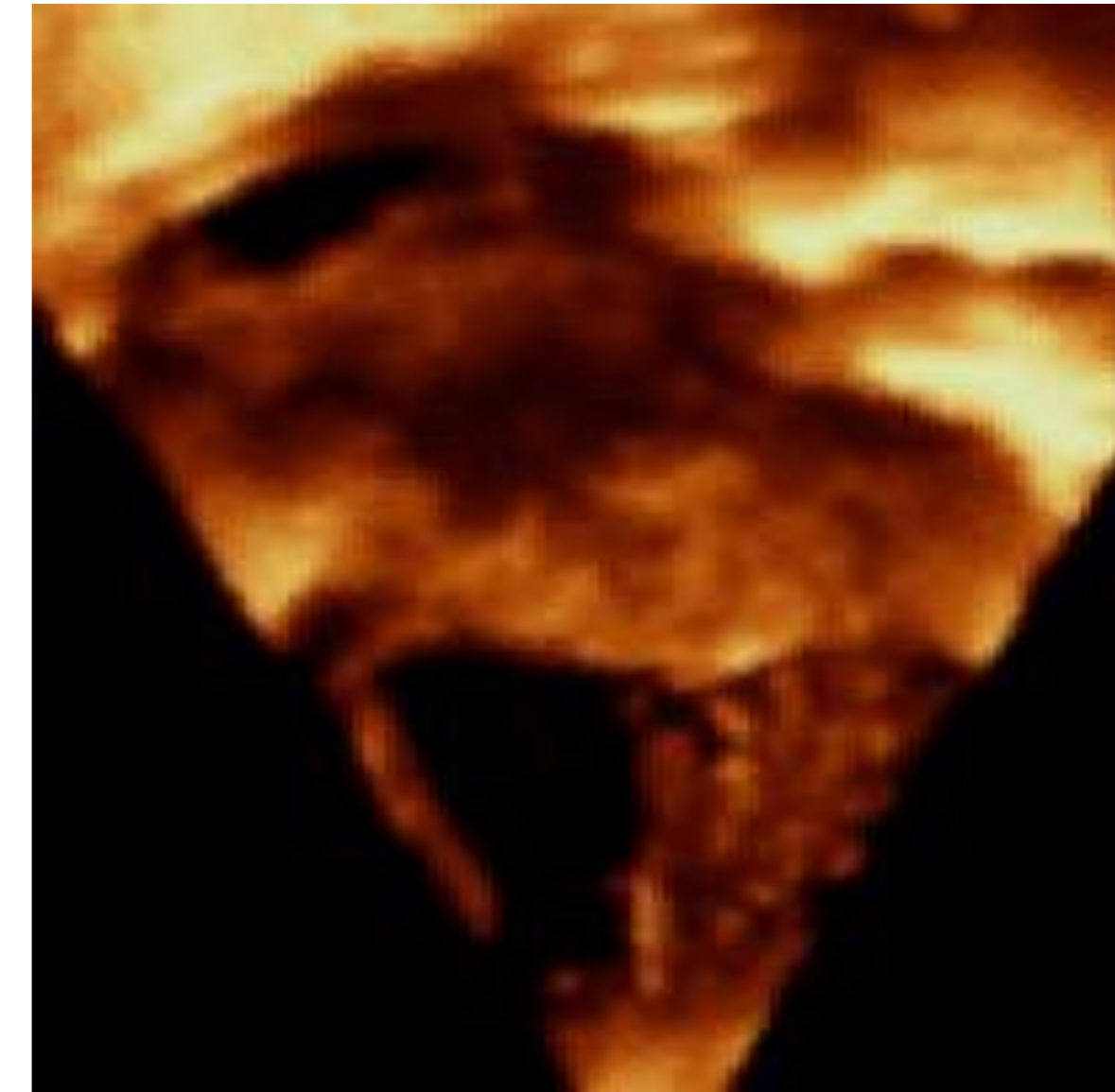
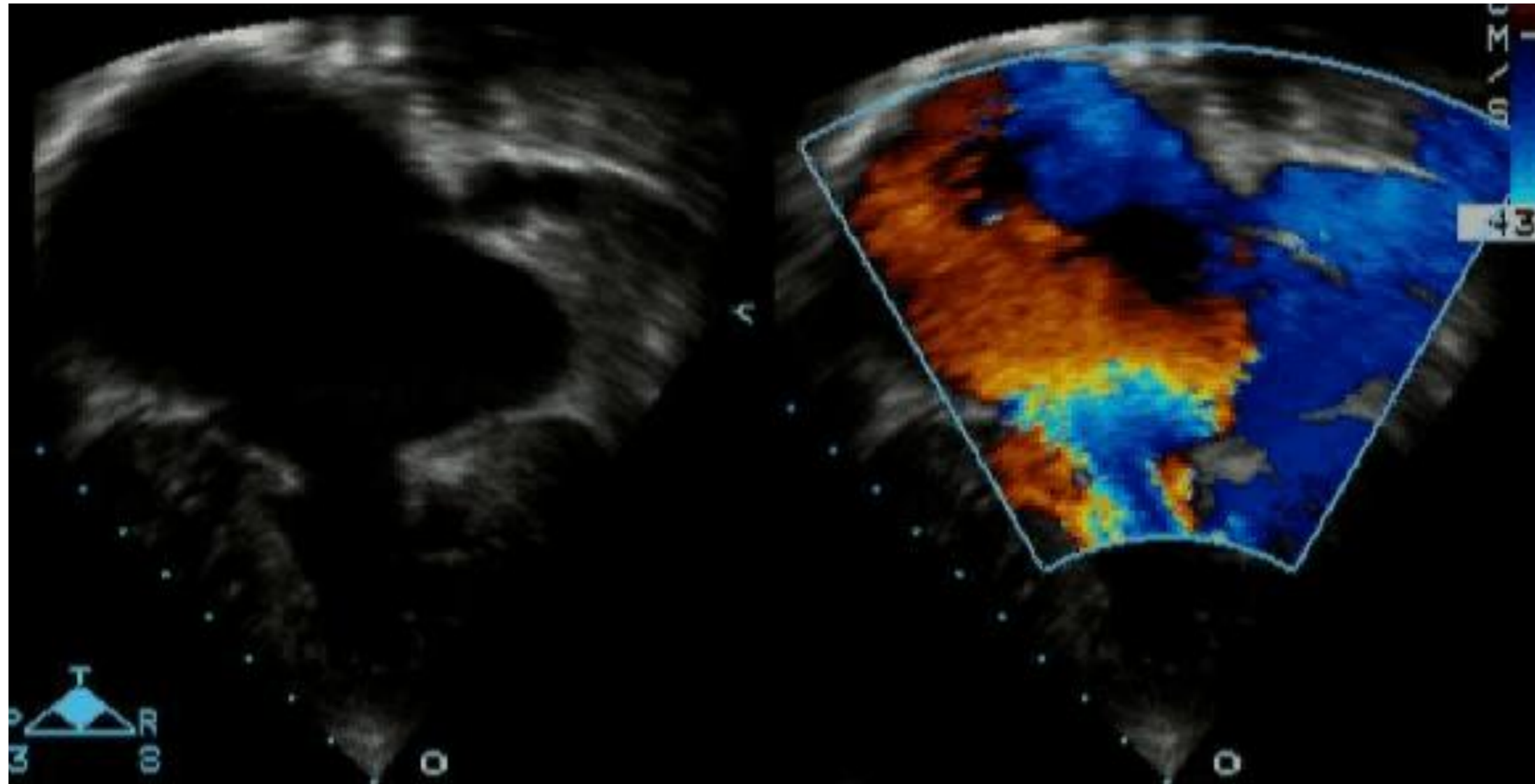


Congenital Mitral Regurgitation

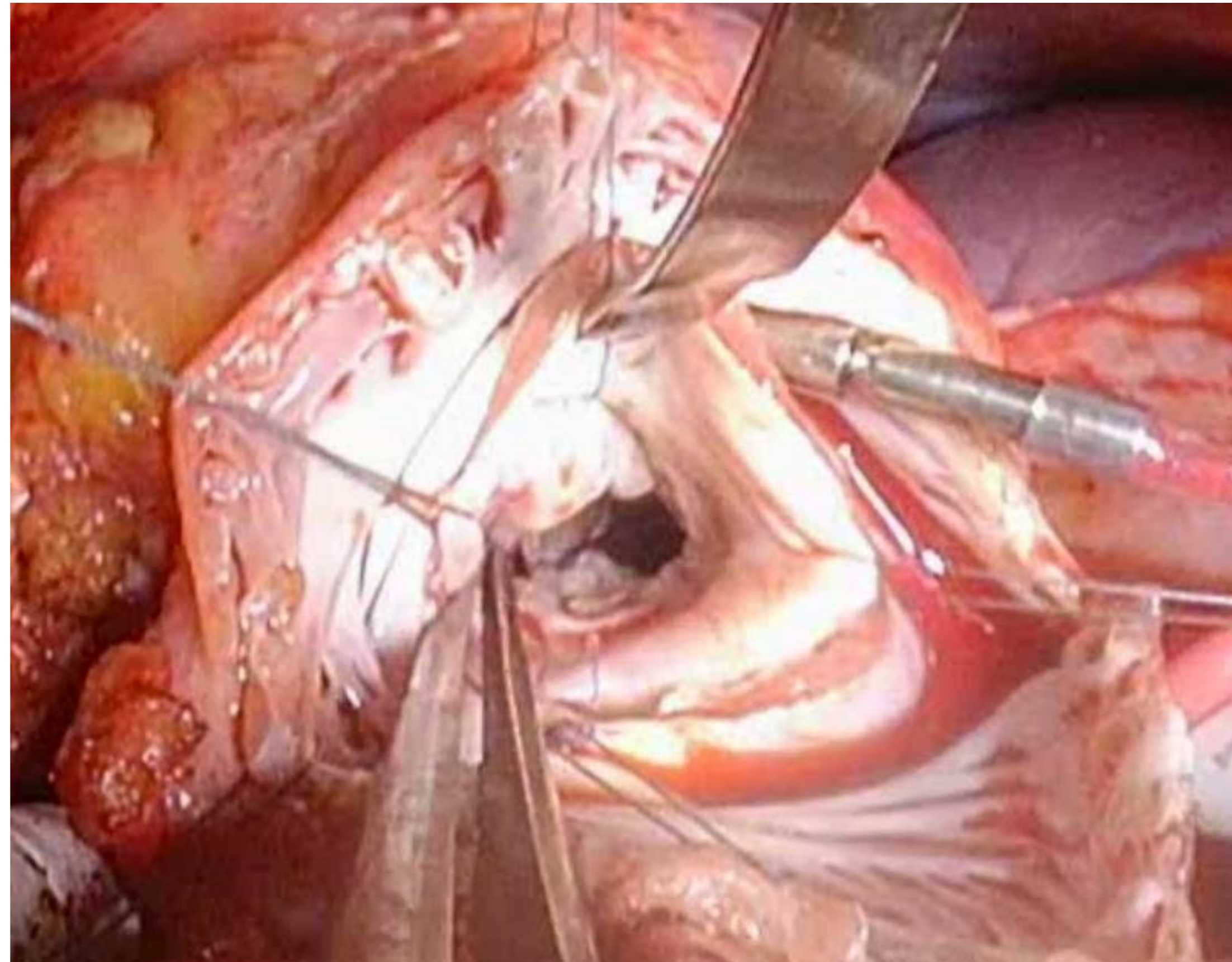


Anterior mitral cleft

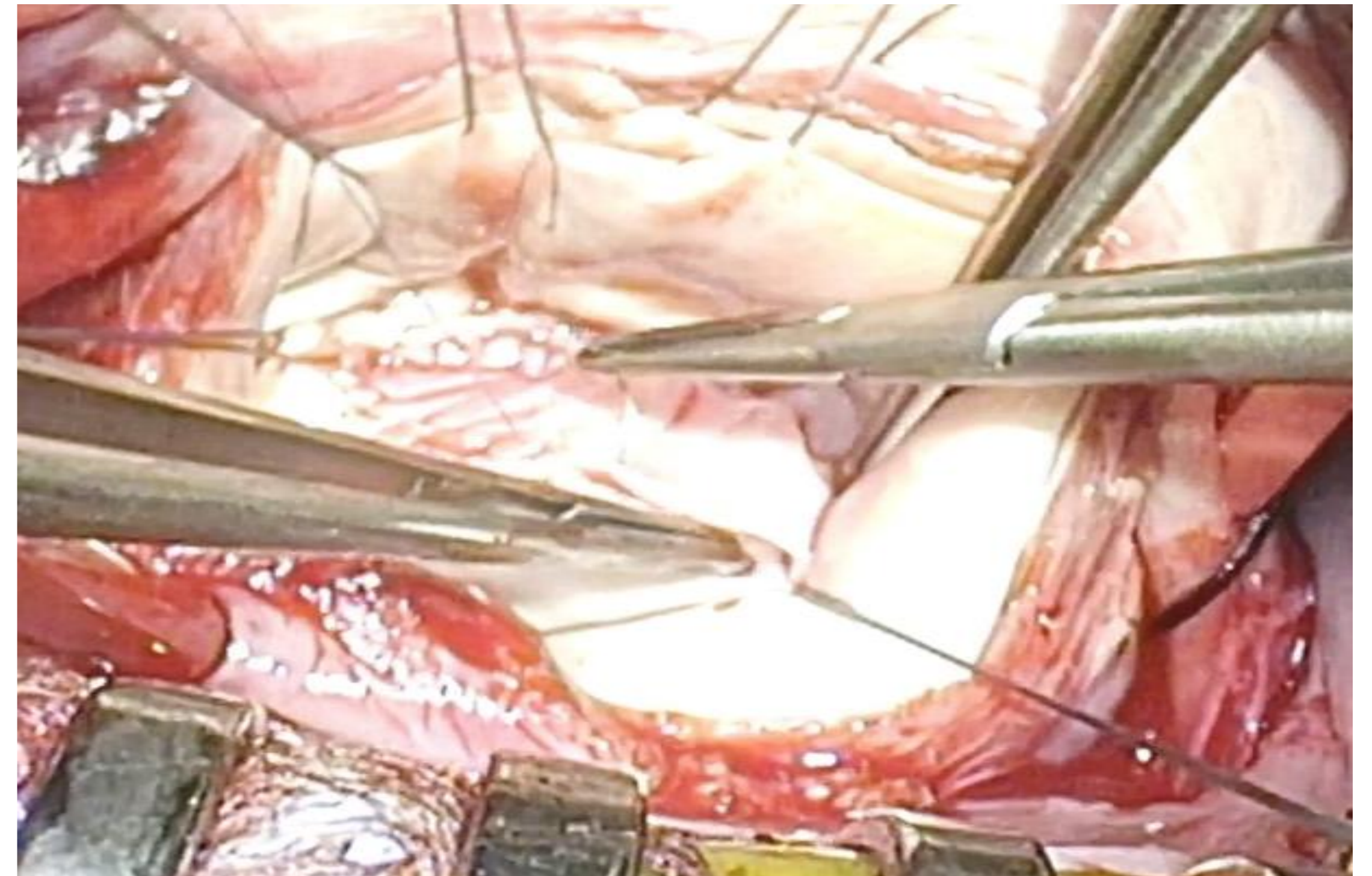
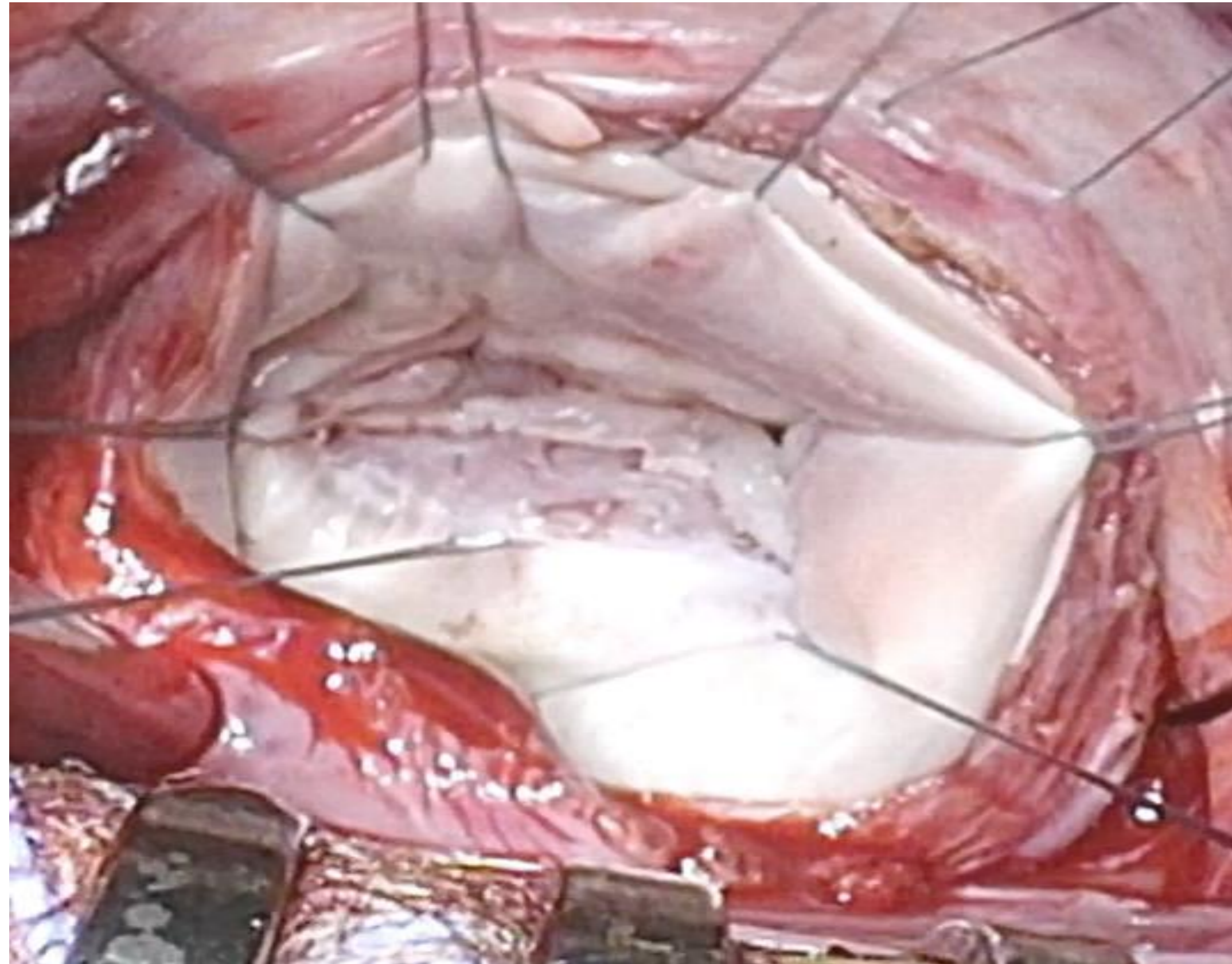
Common AV valve regurgitation



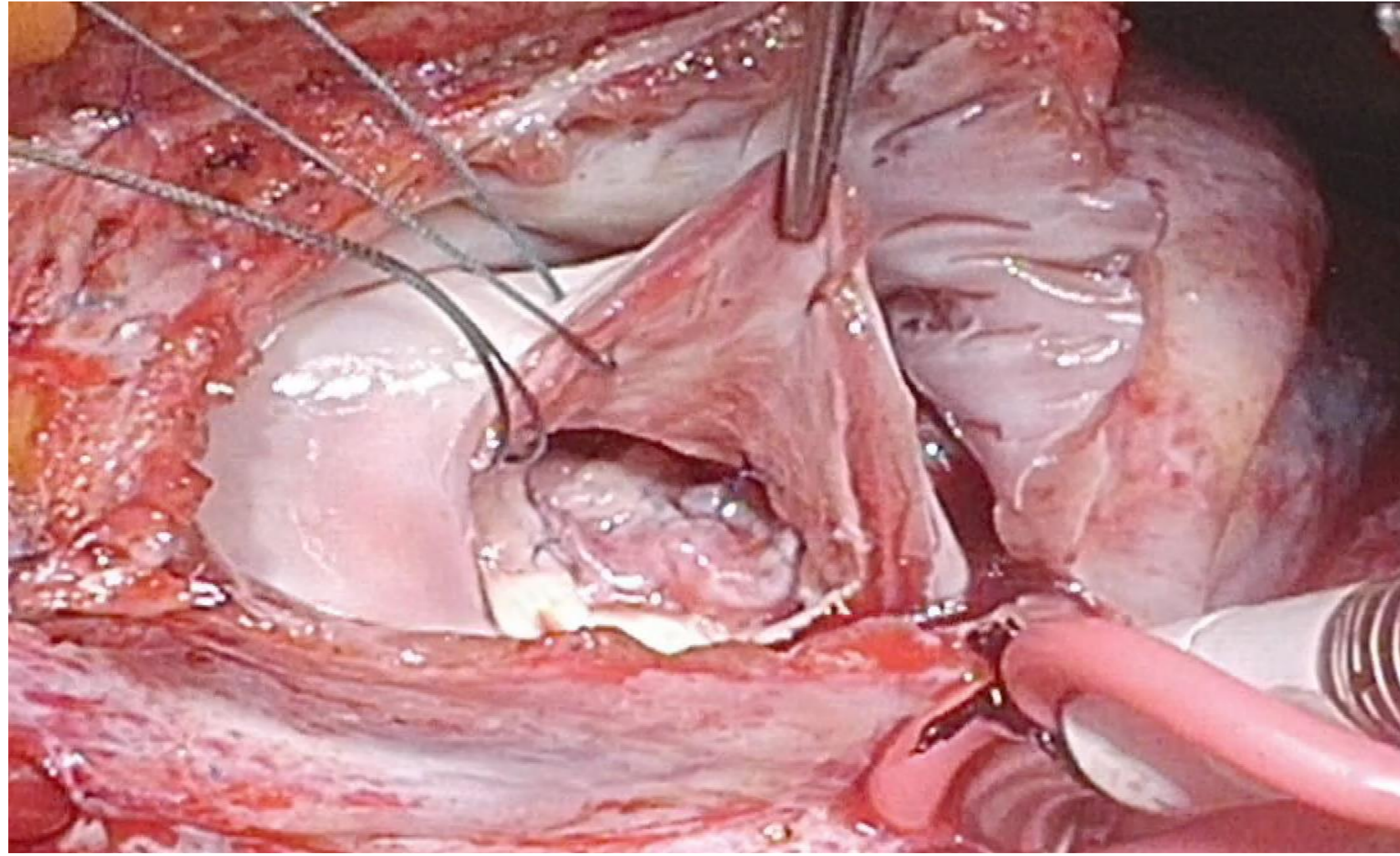
Cleft closure



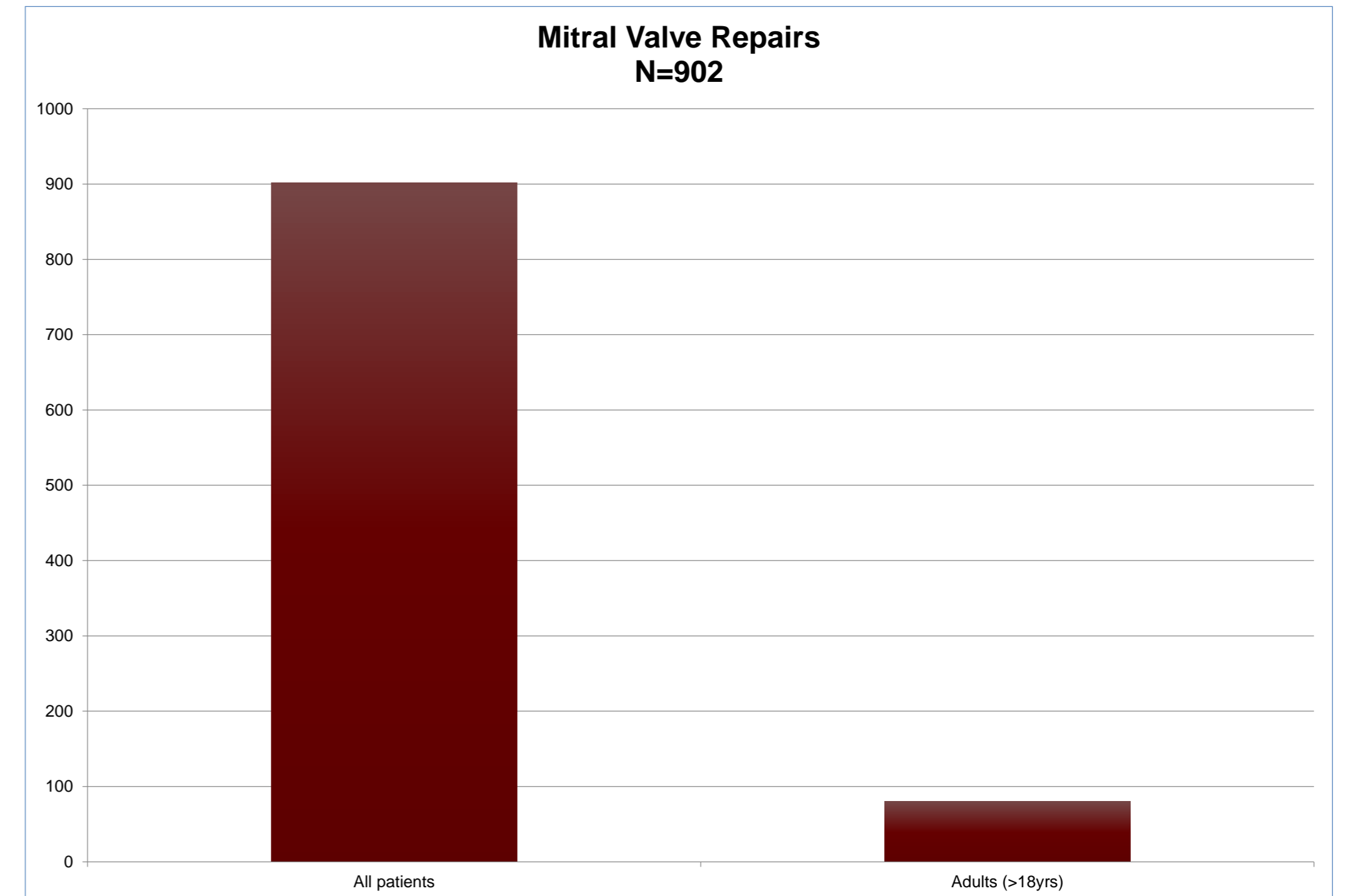
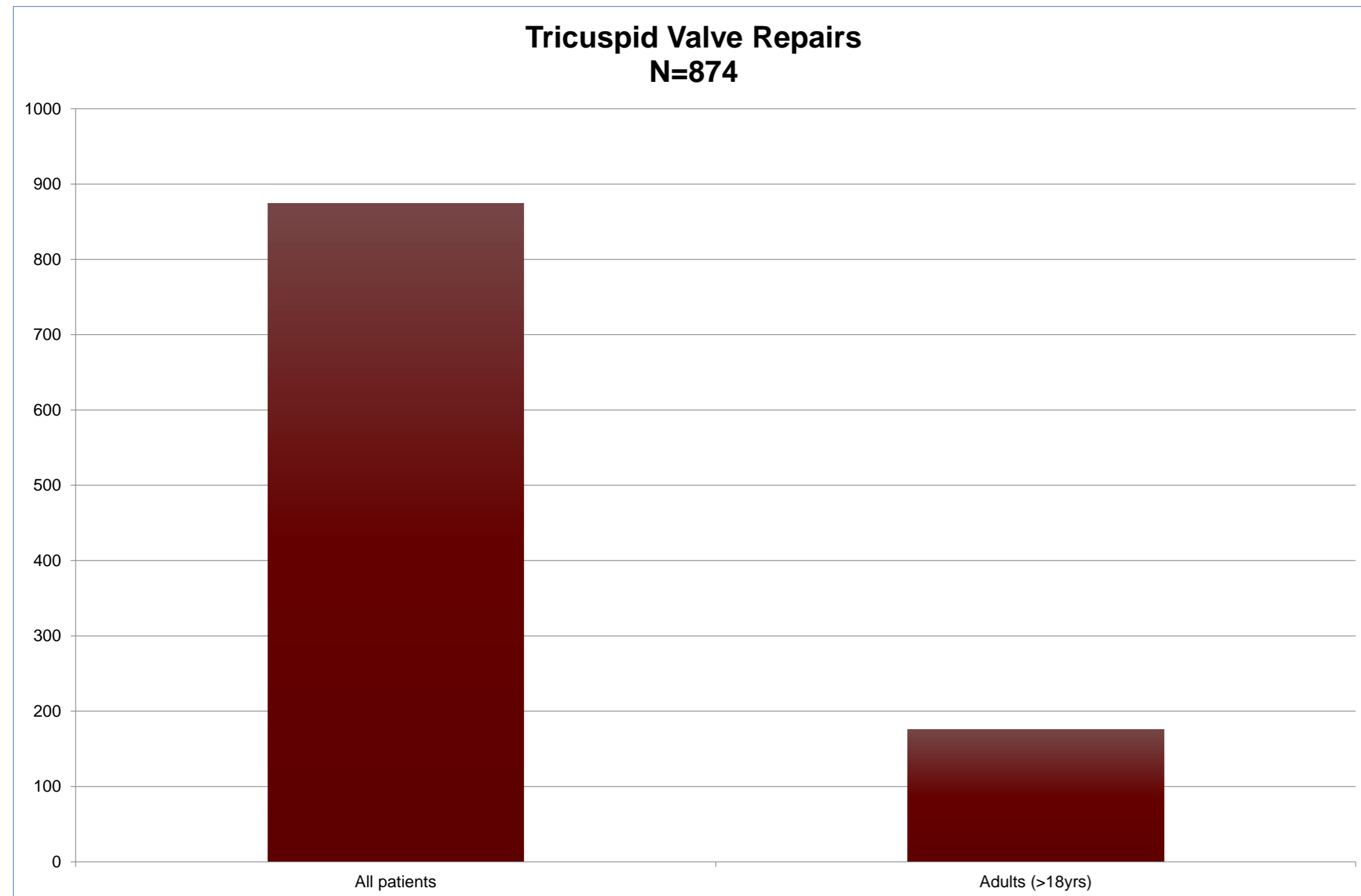
Pericardial patch augmentation



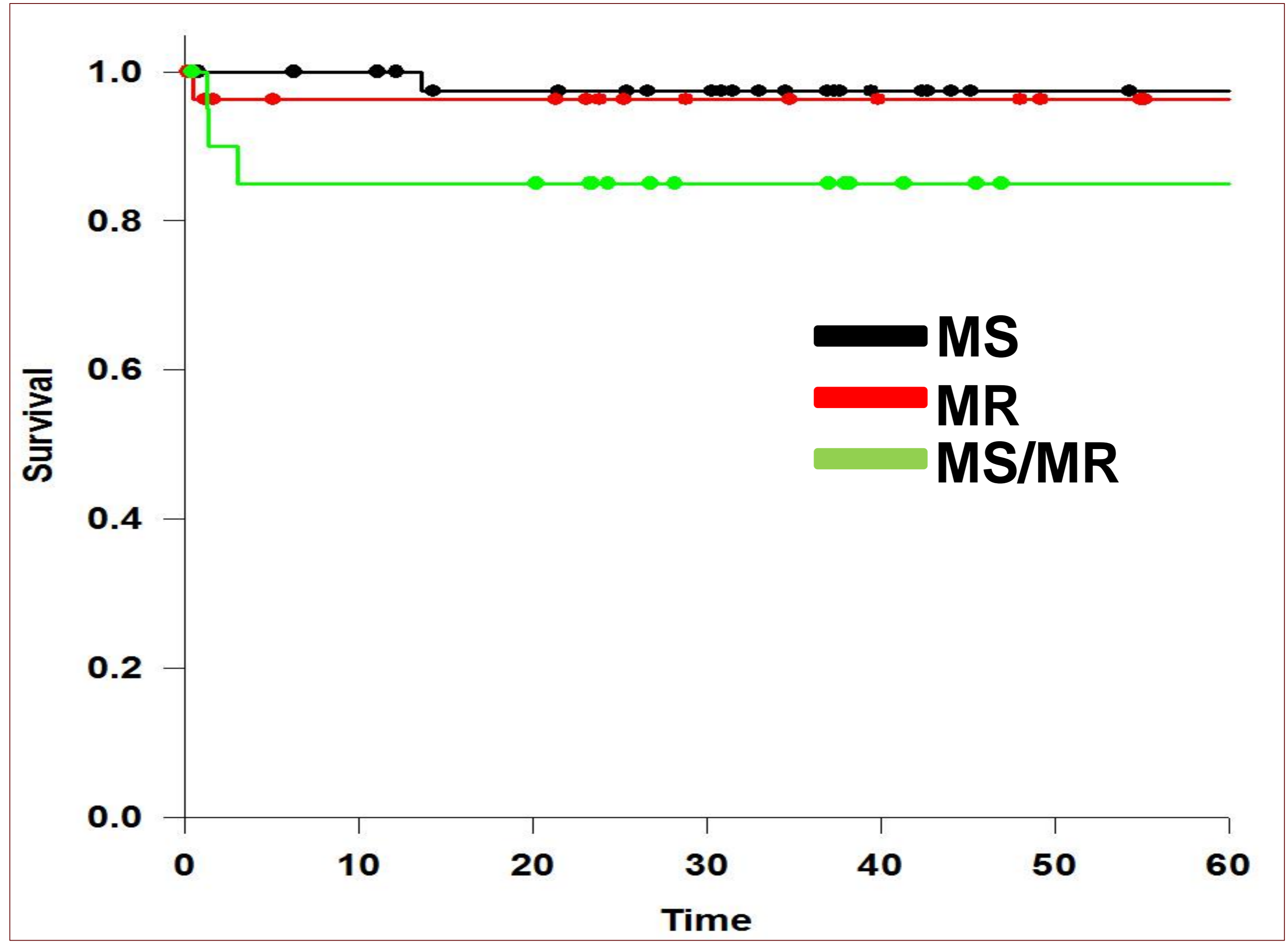
Posterior leaflet patch water test



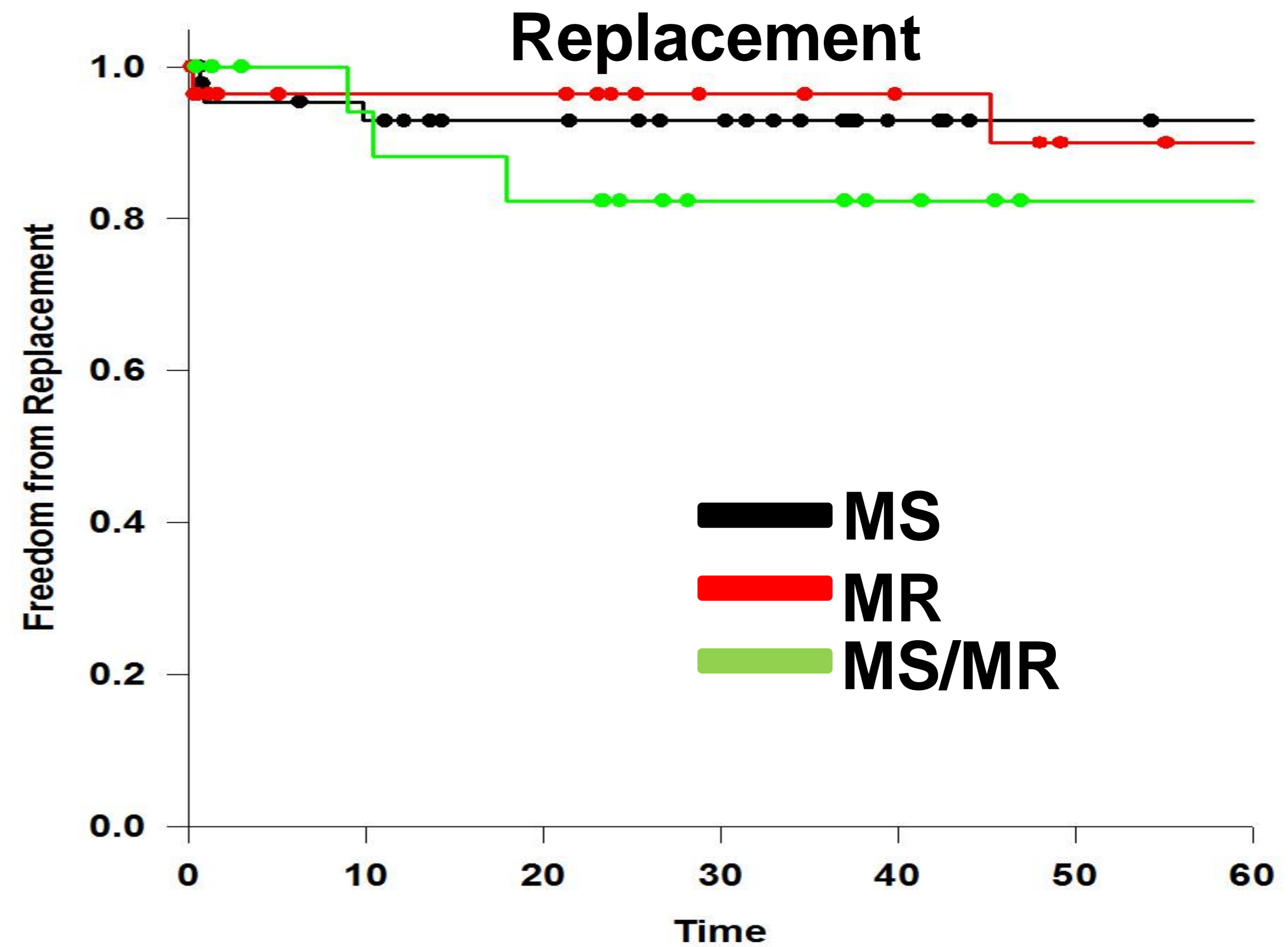
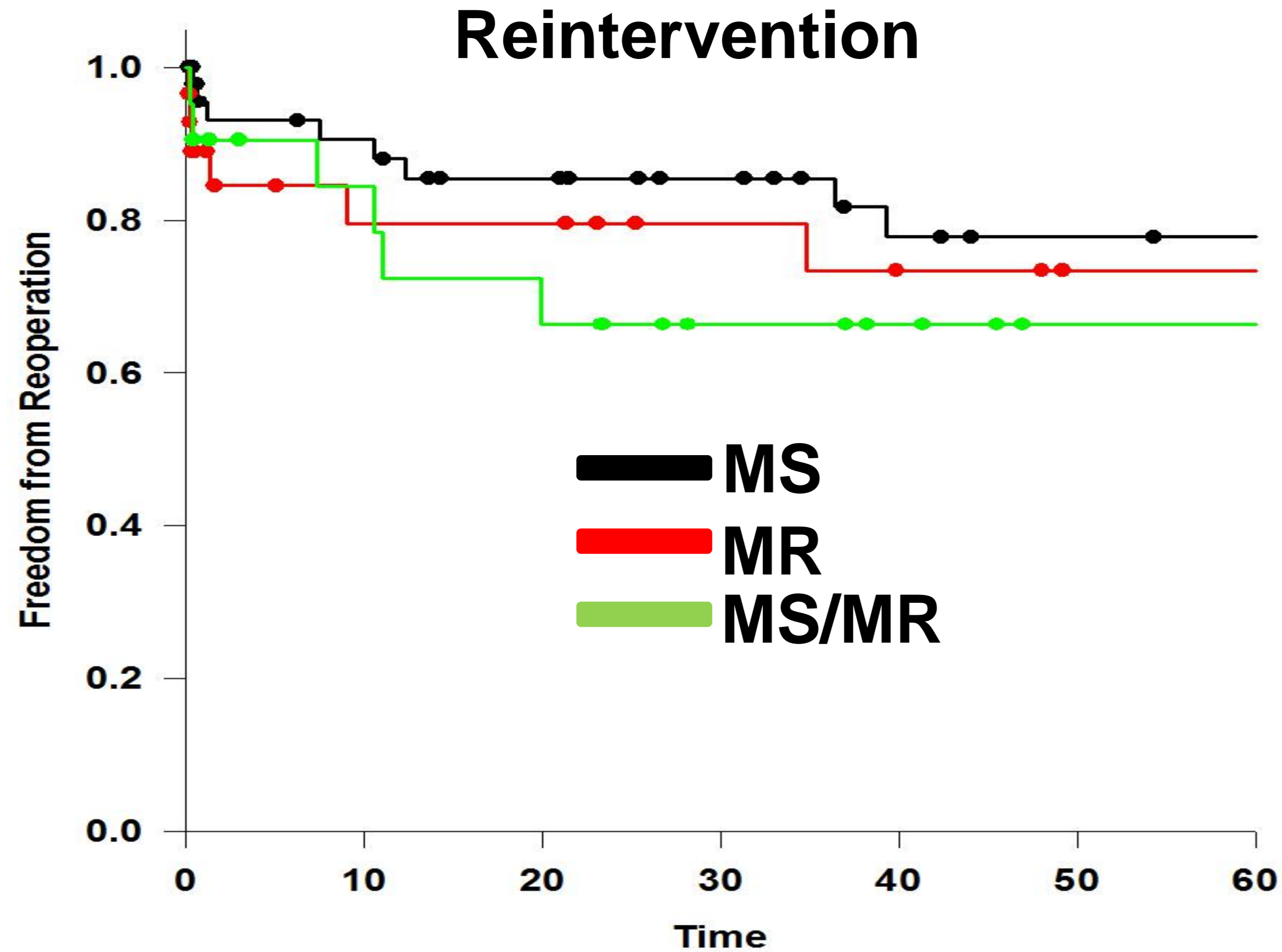
Boston Children's Experience (Jan 2008 to June 2018)



Survival



Freedom from Reintervention or Replacement



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