

The 38th KTCVS
Spring Meeting
2024 SEOUL



The 4th AAPCHS

May 31st - June 1st
Seoul Dragon City Hotel

Complete Atrio-Ventricular Septal Defect — One-patch technique —

Prof. KIM Woong-Han

Seoul National University Children's Hospital
KOREA





Conflict of interest

- Noting to disclose

Patient's information

- F / 1y 5mon (Birth date : 2022.09.05)

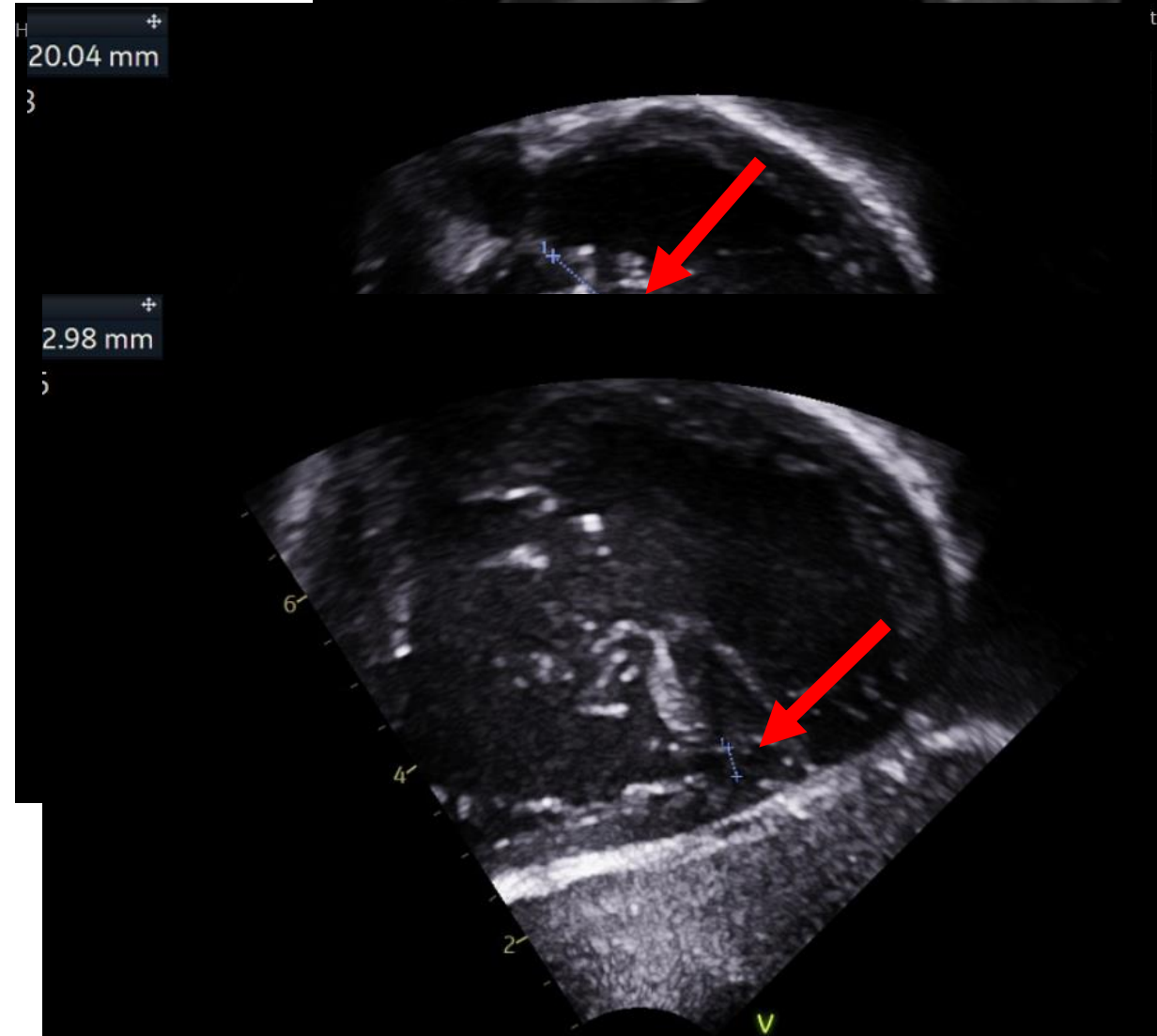
Chief complaint >

Cardiac anomaly with **Down syndrome**

Diagnosis >

Complete AVSD (Rastelli type A)

- **VSD (large), nearly single ventricle**
- ASD (primum)
- Lt. atrioventricular (AV) valve regurgitation (mild)
- Apical muscular VSD (small), PFO



Past medical history

- Gestational age 37+1 weeks, Birth body weight 2.71kg
- Fetal AVSD, trisomy 21
- Operation at outside hospital >
PA banding (external), PDA ligation (2022.09.20)



Current operation

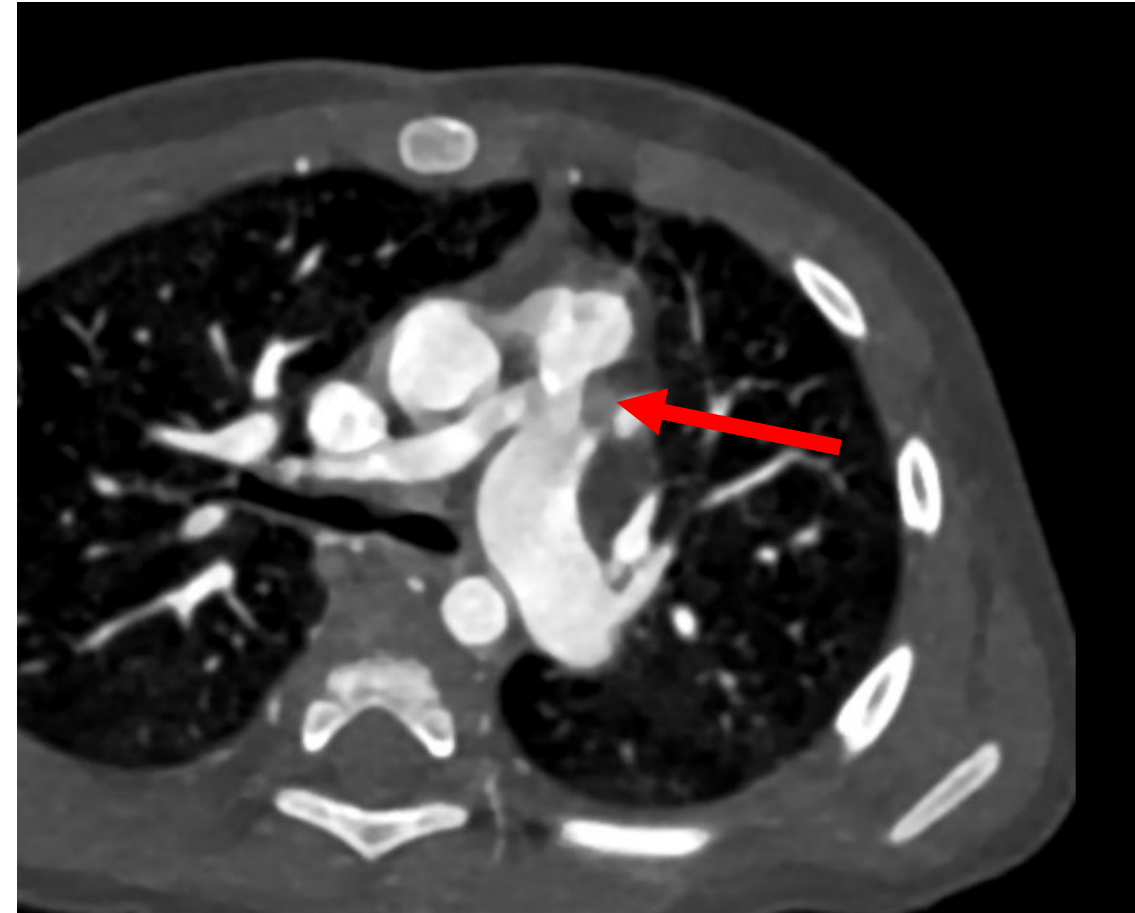
Diagnosis >

Complete AVSD (Rastelli type A)

- VSD (large), nearly single ventricle
- ASD (primum)
- Lt. AV valve regurgitation (mild)
- Apical muscular VSD (small)

Branch PA stenosis

PFO





Current operation

Operation >

Complete AVSD repair

- One-patch technique with GA-fixed autopericardium
- Apical muscular VSD closure (sandwich patch technique)
- Left & Right sided cleft closure
- coronary sinus drain to RA

Previous PA banding removal

PA angioplasty

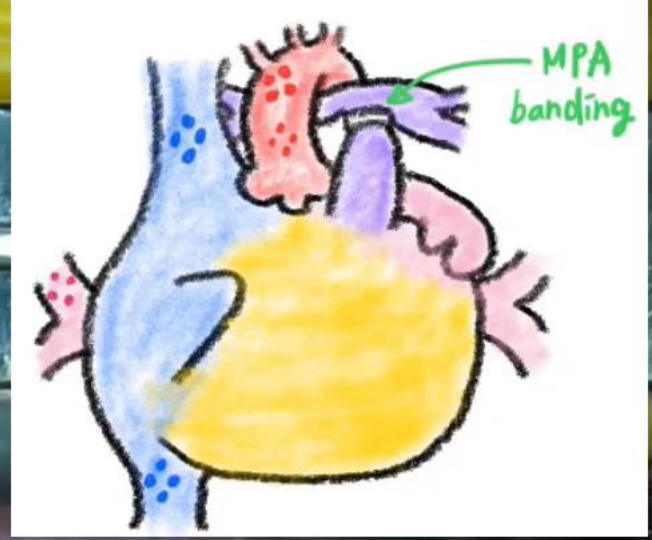
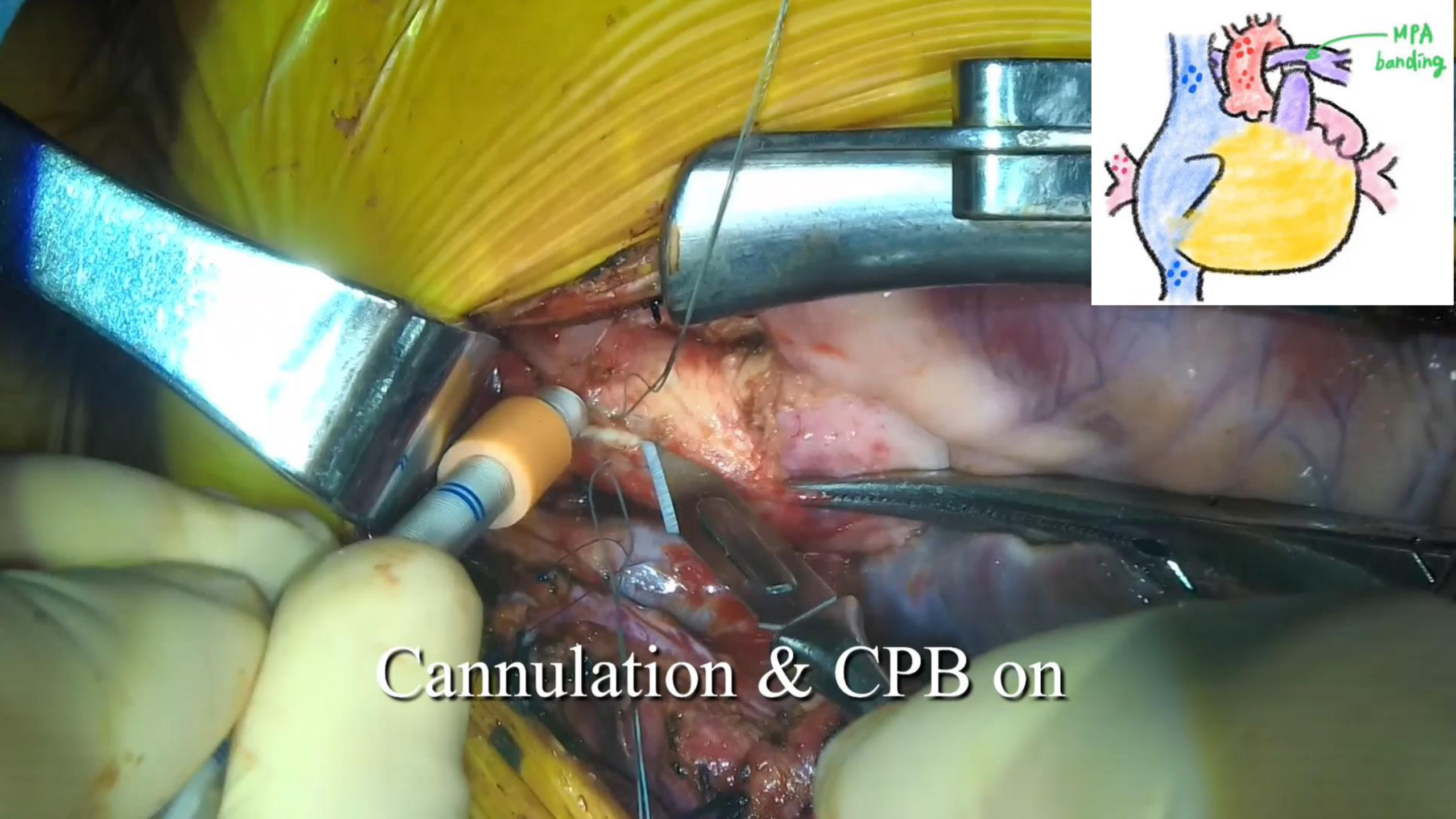
- LPA & MPA & 2 sinuses inverted Y patch angioplasty
- RPA os cut-back angioplasty

PFO primary closure





Operation video



Cannulation & CPB on

Hospital course

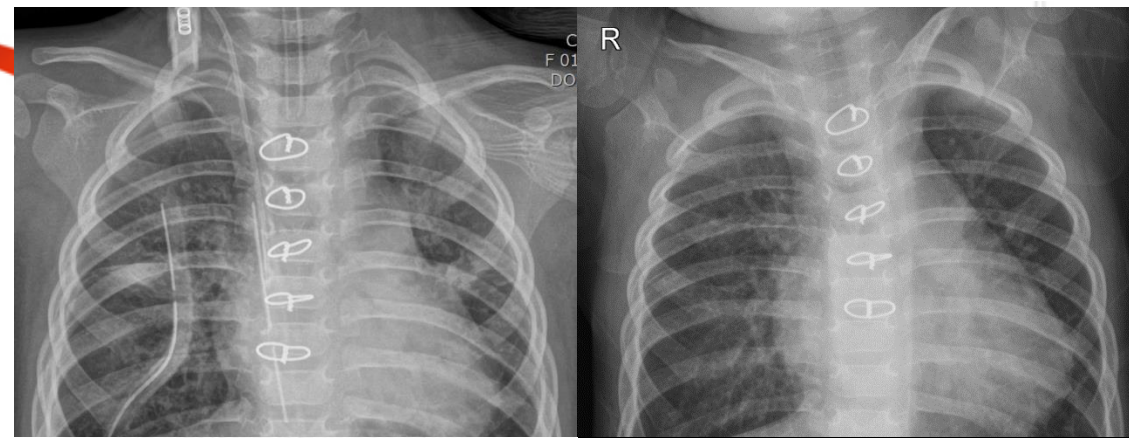
2024.02.14. Operation

POD 1 day Extubation, Transfer ICU to ward

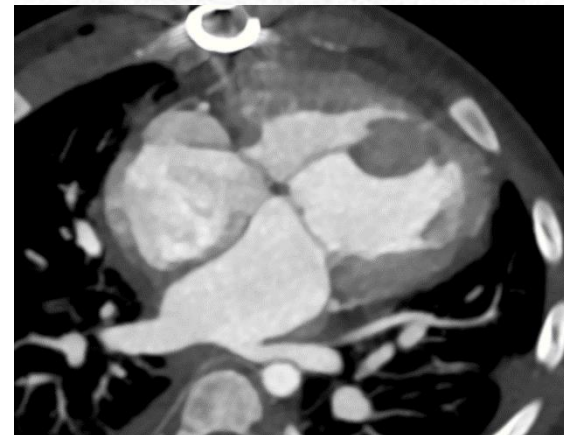
POD 6 day Postoperative Lung Perfusion Scan

POD 7 day Postop. CT & Echo.

POD 9 day Discharge

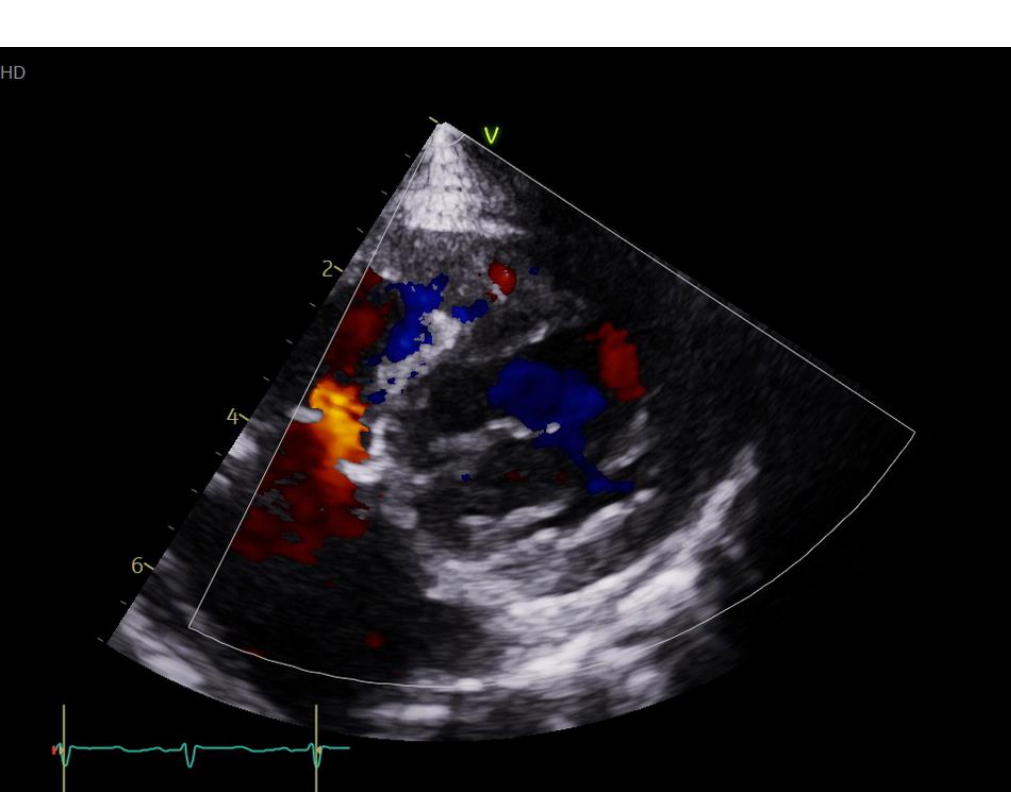


Lung	Left	Right
Upper	11.8%	7.2%
Middle	27.6%	27.1%
Low	12.1%	14.3%
Total	51.4%	48.6%
IV site : RT hand		

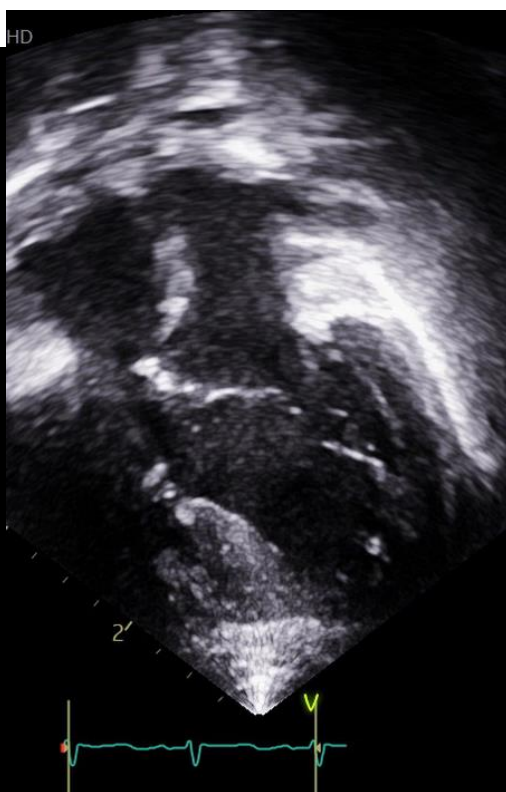


Postop CT scans

Postoperative echocardiography



No PM VSD leakage,
Good ventricular contractility (EF 64%)

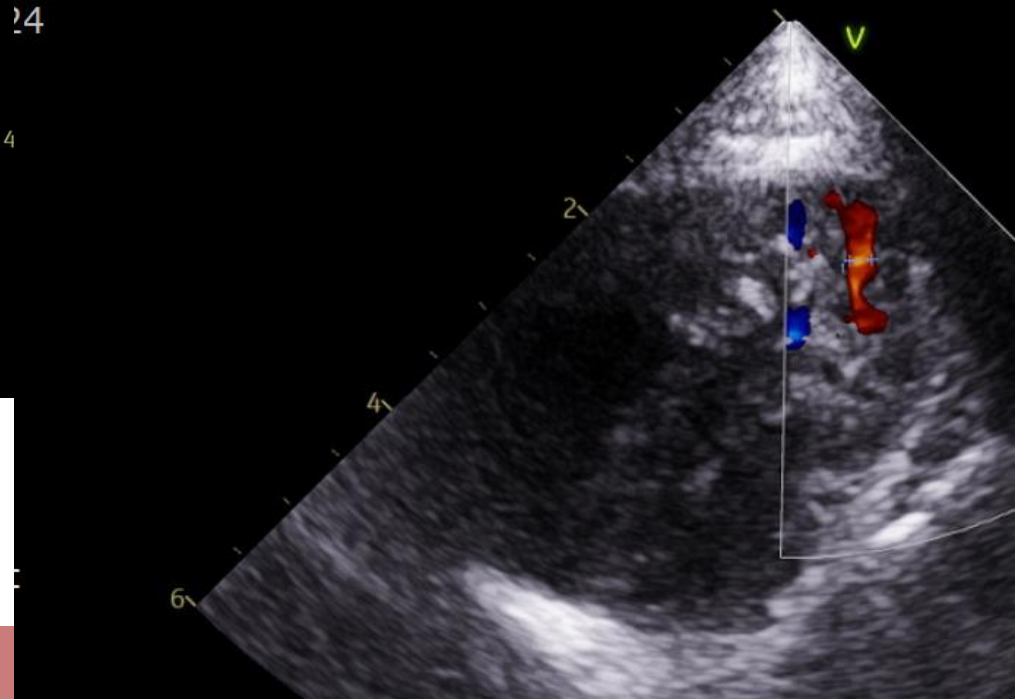


Trivial MR



1.59 mm

Small residual apical muscular VSD (1.59mm)





Conclusion

- **One-patch technique** can be safely and effectively performed in the patients with **complete AVSD** providing good surgical views.
- 