



Falling down the rabbit hole: a rare case of cardiogenic shock after TAVR

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- I do not have any potential conflicts of interest to declare

Medical history and Heart Team evaluation

A 90-year-old female patient known for concentric left ventricular hypertrophy and moderate aortic stenosis in follow-up from 2012

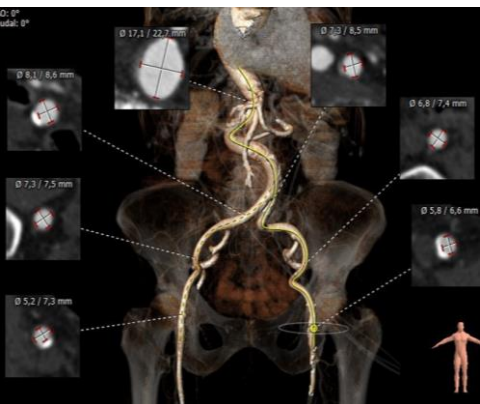
- In November 2020: atypical angina pectoris and dyspnea for mild effort

TTE

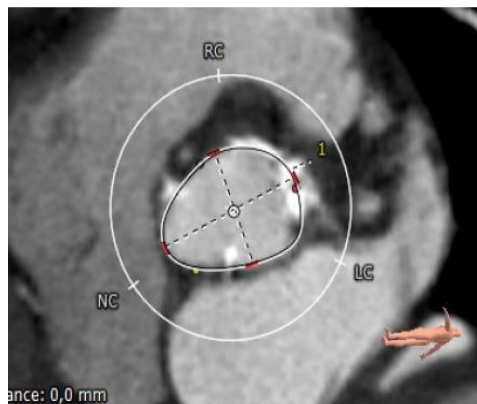


mean gradient 45 mmHg, aortic valve area 0.6 cm²

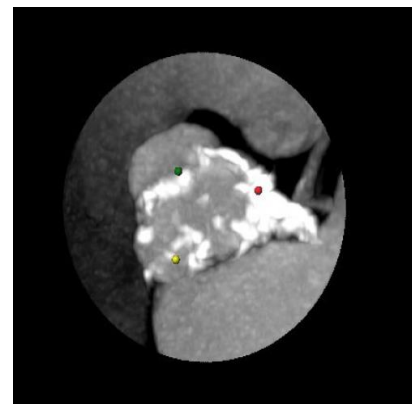
CT scan



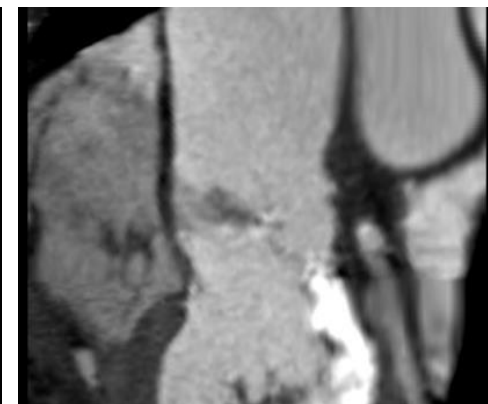
Vascular accesses



Perimeter 84 mm



Severe annular calcification



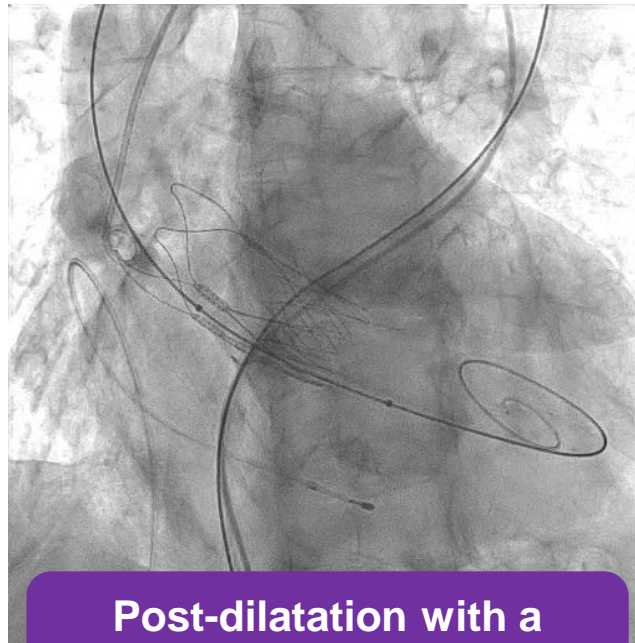
Calcium at LVOT level

Society of Thoracic Surgeons score: 7.7%

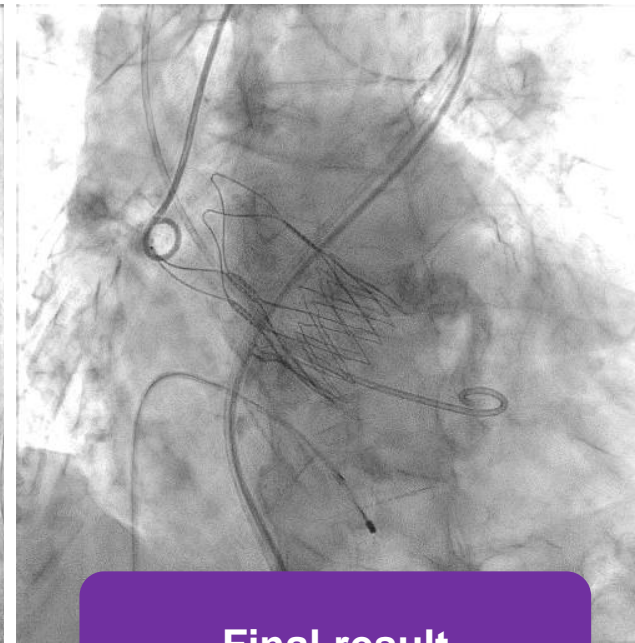
TAVR with Acurate Neo 2 size L



**Residual more than mild
paravalvular leak**



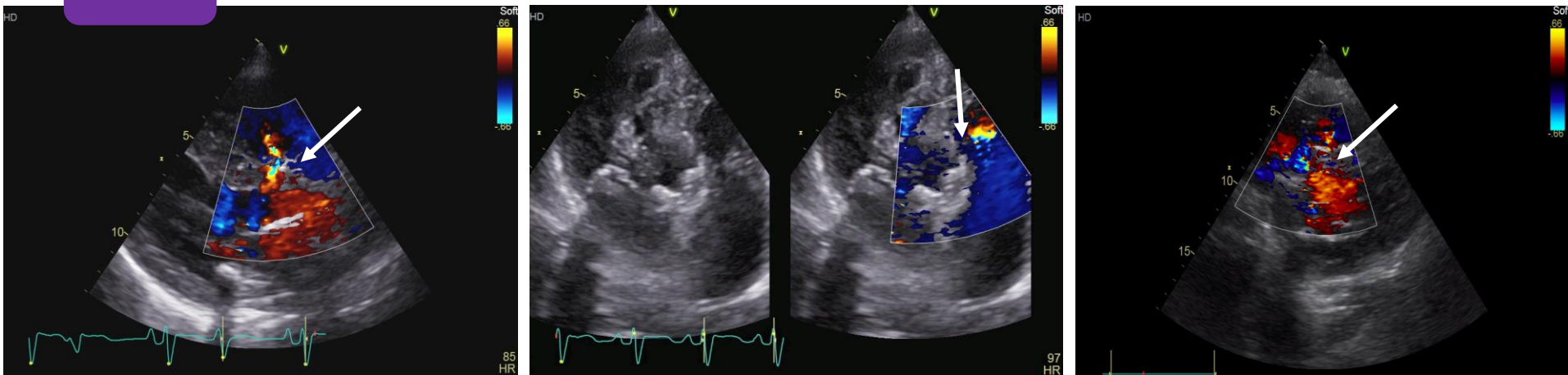
**Post-dilatation with a
25 mm Valver balloon**



Final result

Intensive Care Unit

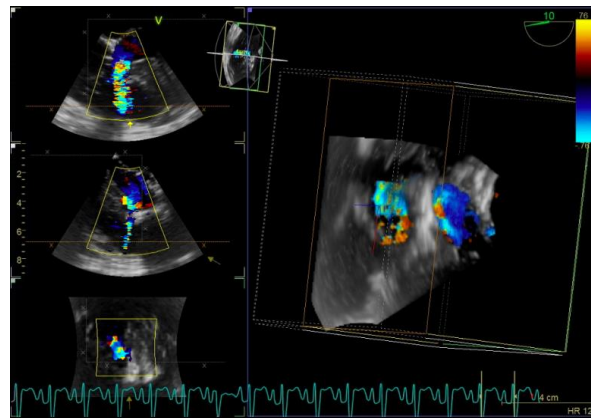
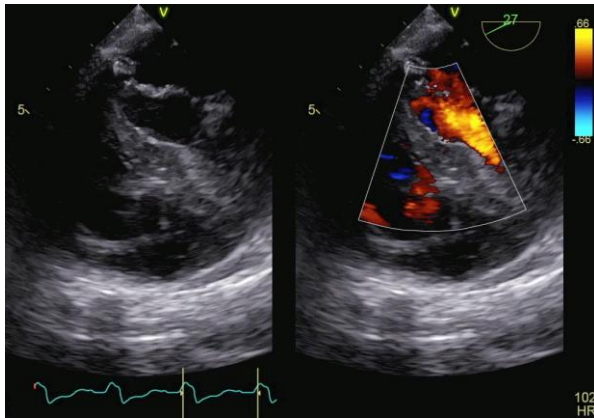
Post-operative day 1: development of left bundle branch block and hemodynamic instability requiring dobutamine and norepinephrine infusions

TTE

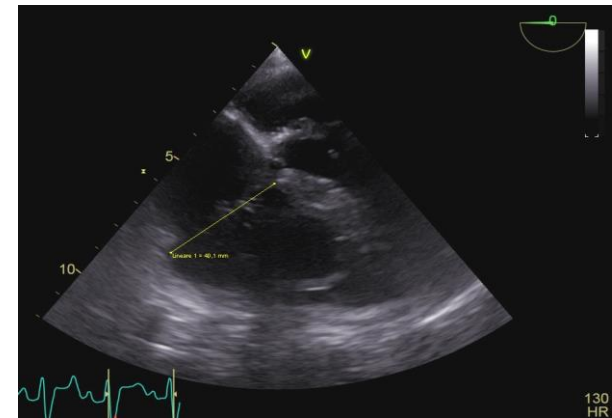
Appearance of peri-membranous VSD with left-to-right shunt

Diagnostic imaging

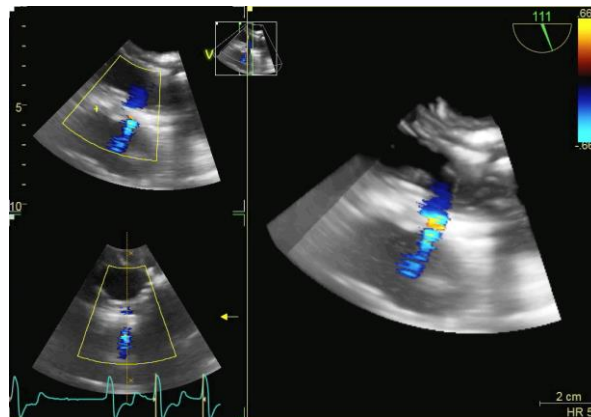
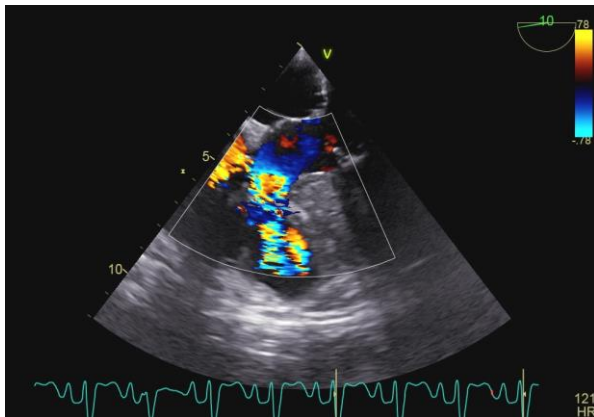
TEE



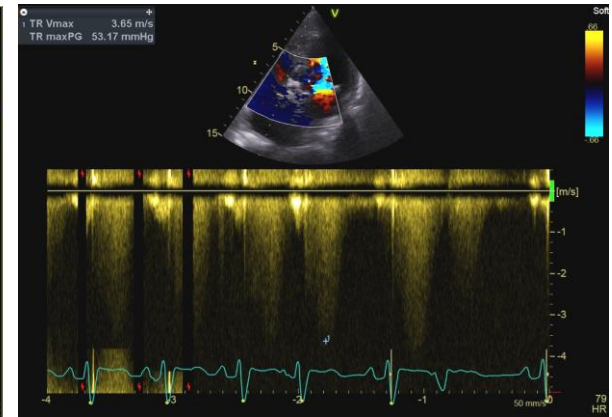
Acute right ventricle dilatation



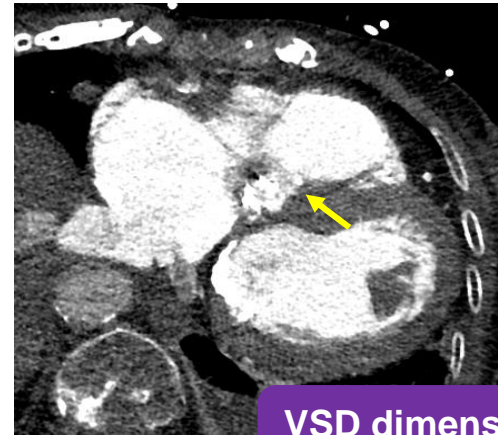
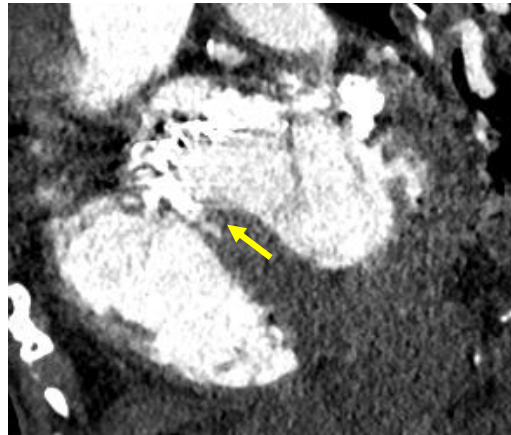
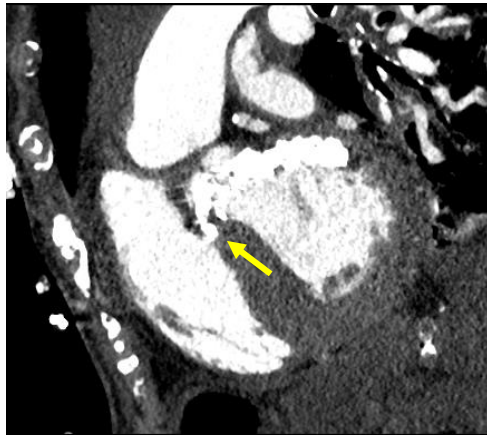
VSD-derived left-to-right shunt



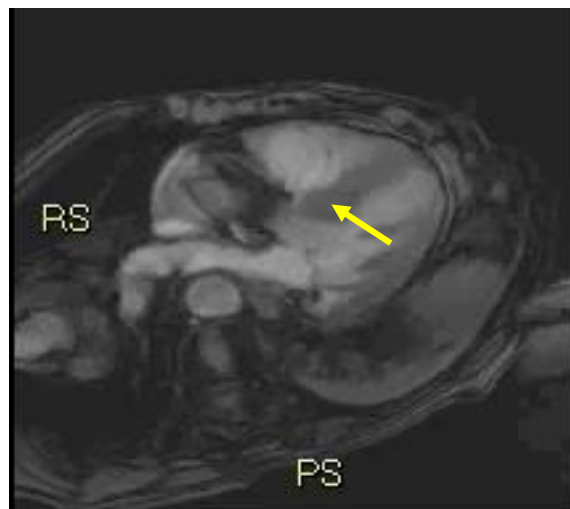
Pulmonary hypertension



CT scan and cardiac MRI confirmed the diagnosis of peri-membranous VSD

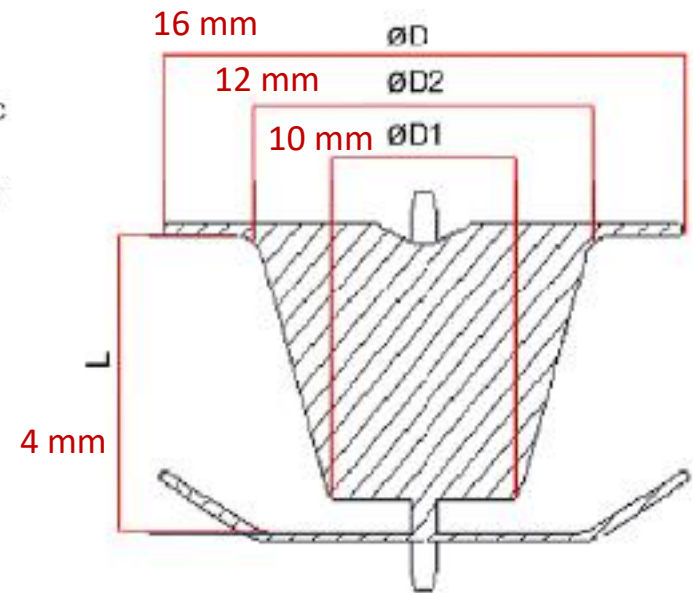
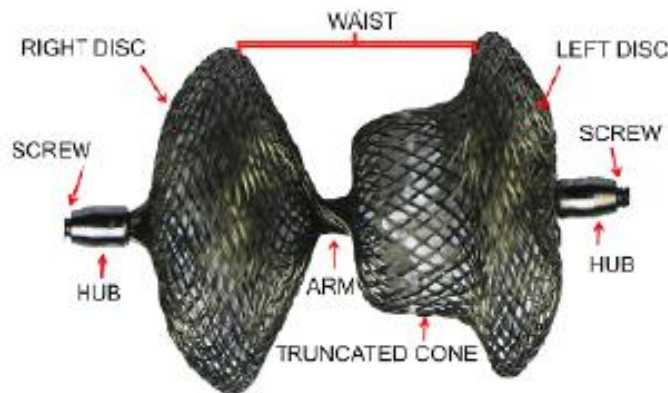


VSD dimension:
9 x 10 mm



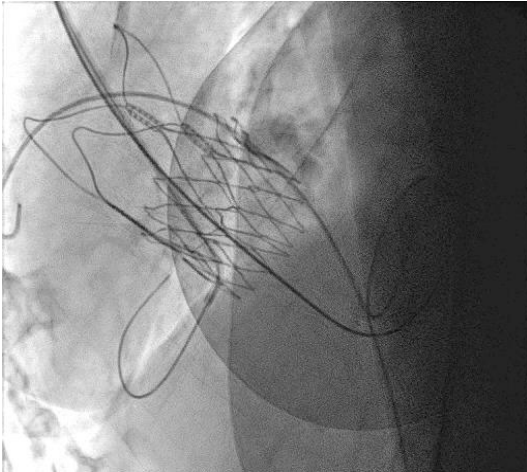
Qp:Qs 2.2

KONAR-MF occluder 12-10

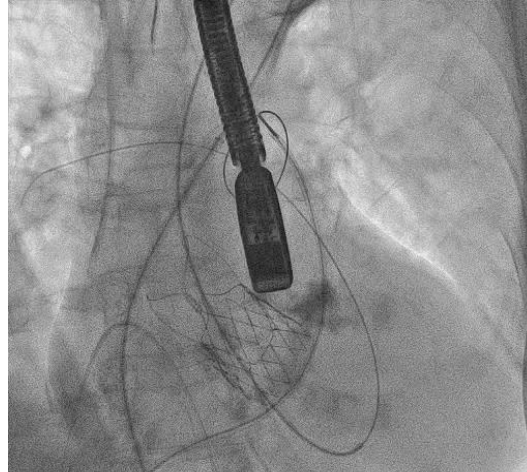


- More flexible compared to other devices
- Device design may guarantee a reduced interaction with Acurate Neo 2 inflow frame

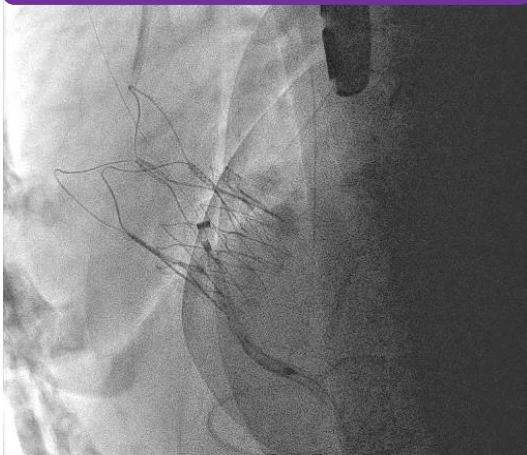
Implantation of occluder through a transfemoral approach



VSD crossing from left ventricle



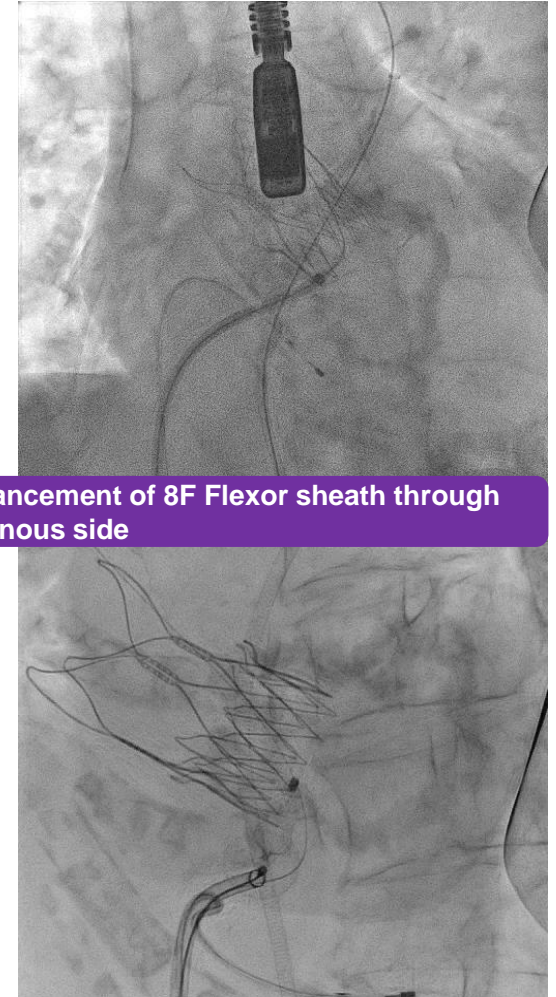
Creation of artero-venous loop and advancement of 8F Flexor sheath through VSD from venous side



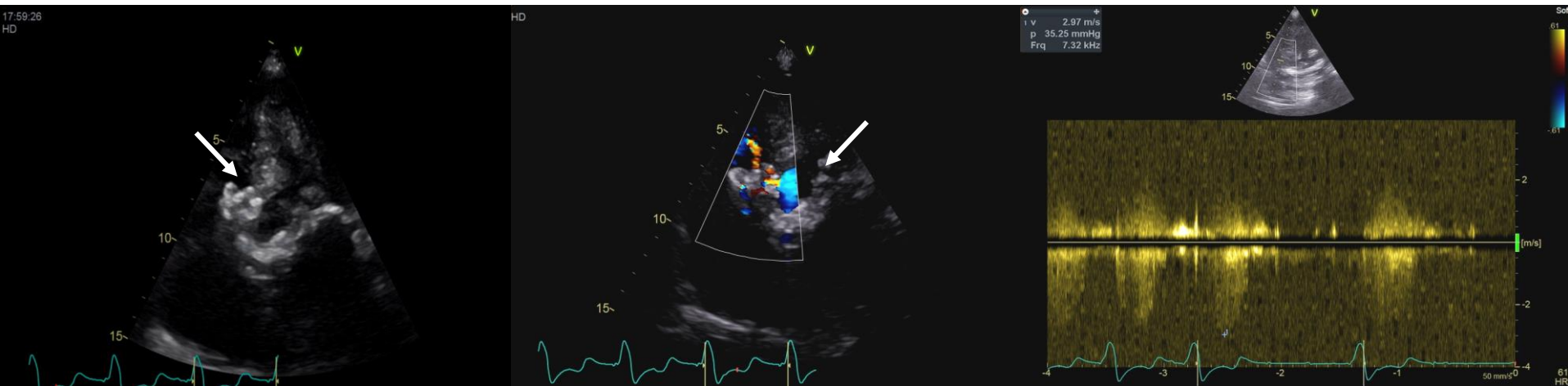
Device positioning and left side disk release



Final result



Final result after percutaneous closure of iatrogenic VSD



Device correctly positioned

Mild residual shunt

Pulmonary pressure normalization

- Septum membranous rupture and VSD are rare complications of balloon post-dilatation, especially in calcified anatomies
- Percutaneous management of this complication is feasible
- Patient's clinical status and multimodality imaging are essential to evaluate VSD closure indication and to successfully close the defect
- To the best of our knowledge, this is the first reported case of Konar-MF occluder implantation in such setting