

Device closure of Ruptured Sinus of Valsalva Aneurysm in a critically sick patient



Disclosure Statement of Financial Interest

I, (Dr.R.D.Yadave) DO NOT have a financial interest/arrangement or affiliation with one or more organizations that could be perceived as a real or apparent conflict of interest in the context of the subject of this presentation.

History and Physical Examination

- **Thirty year old male presented with chest pain, palpitation and severe breathlessness. He was in shock with features of severe CHF in a gasping stage.**
- **His pulse was 170 bpm, BP 70mm Hg systolic, Resp rate 25 /min gasping , JVP raised . Cardiomegaly with continuous murmur heard at lower left sternal border.**
- **Chest – B/L fine crepts with prolonged expiration and ronchi.**
- **Liver enlarged 10 cm below costal margin and tender .**

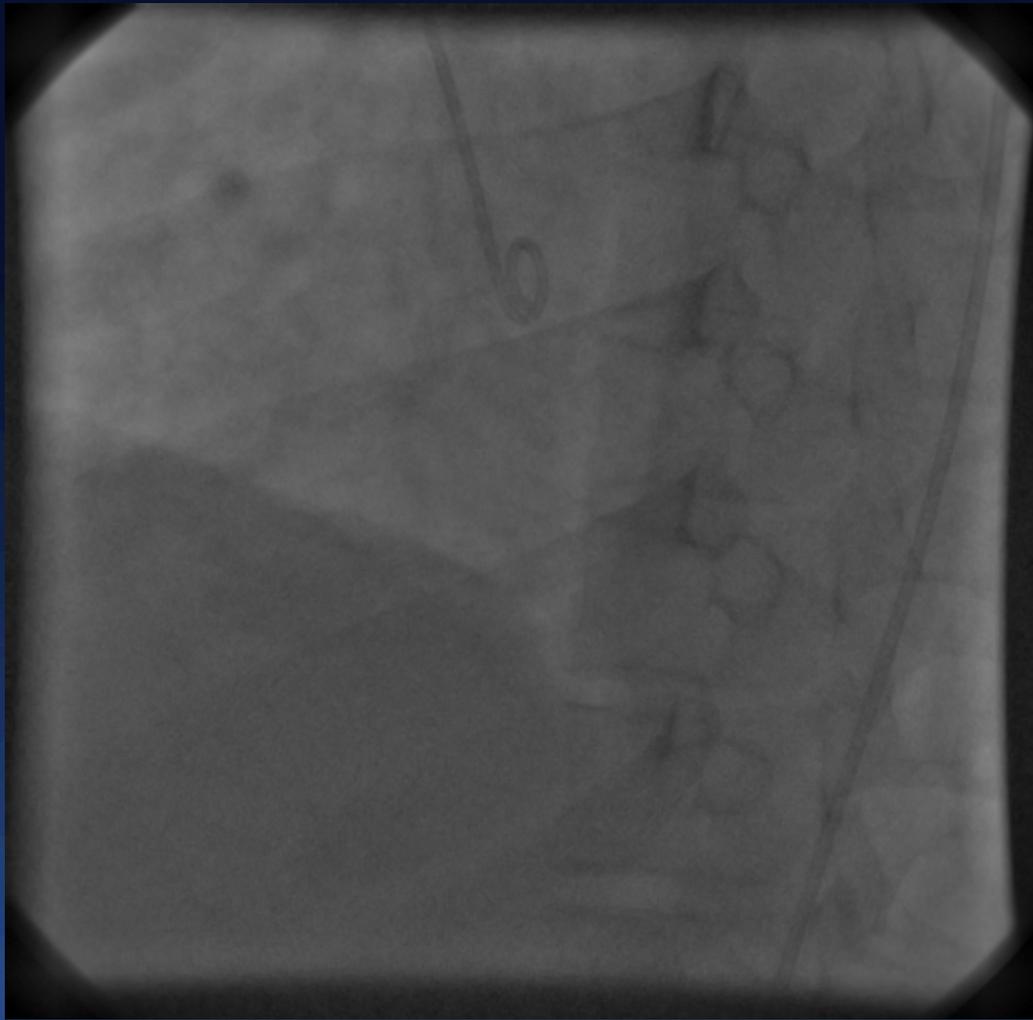
Investigation

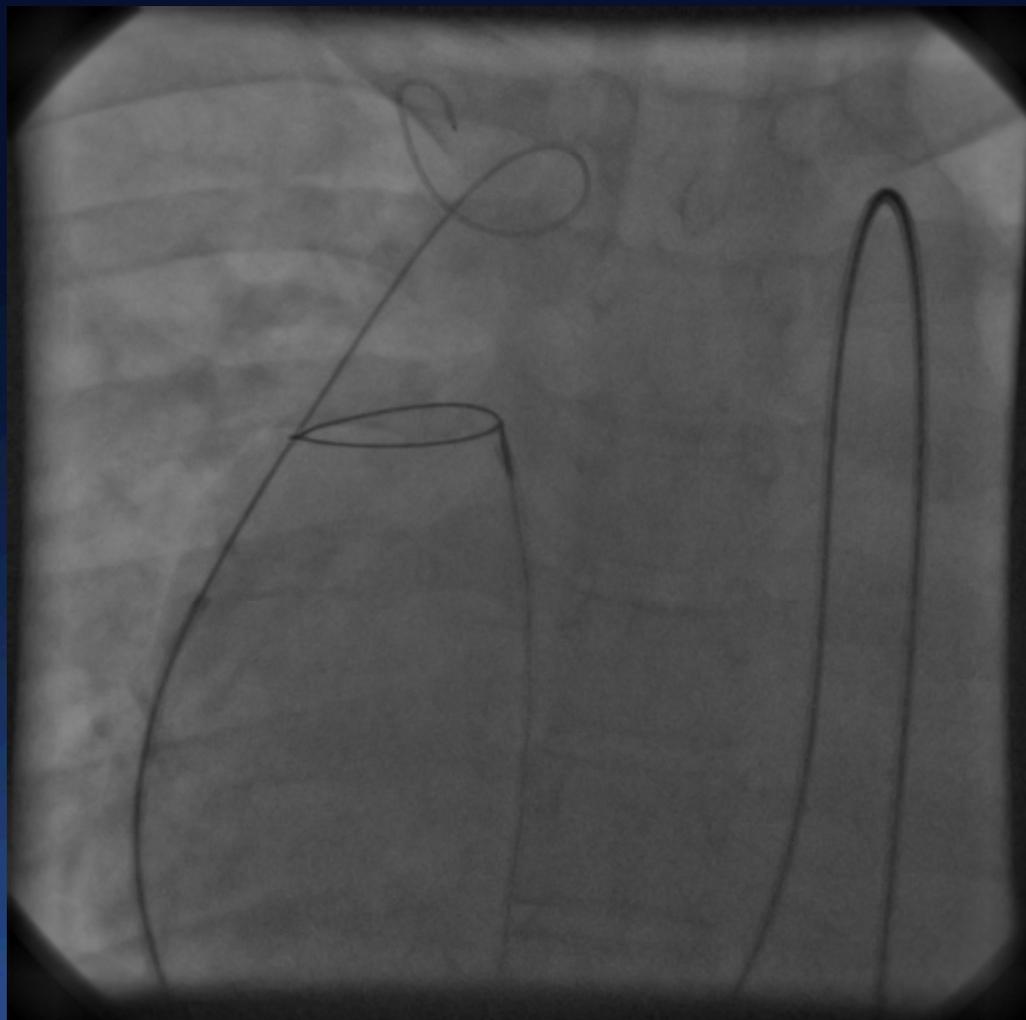
- ECG showed VT 170 bpm with RBBB and left axis deviation morphology.
- X-ray chest showed massive cardiomegaly with increased Qp and severe PVH.
- Echo showed LA, LV and RV volume overload along with RSOV aneurysm of non coronary sinus to RA .Size of defect was 10-12 mm with continuous Left to Right shunt.

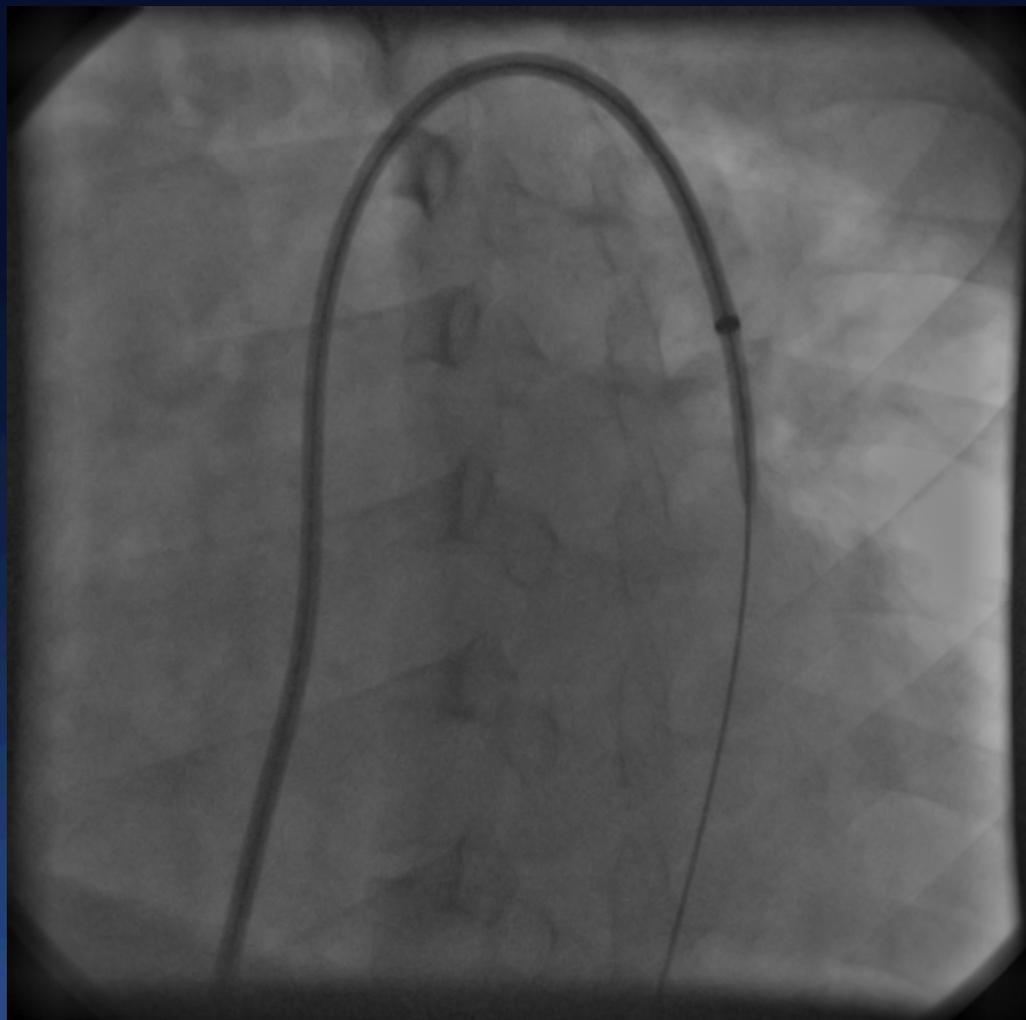
Procedure of device closure

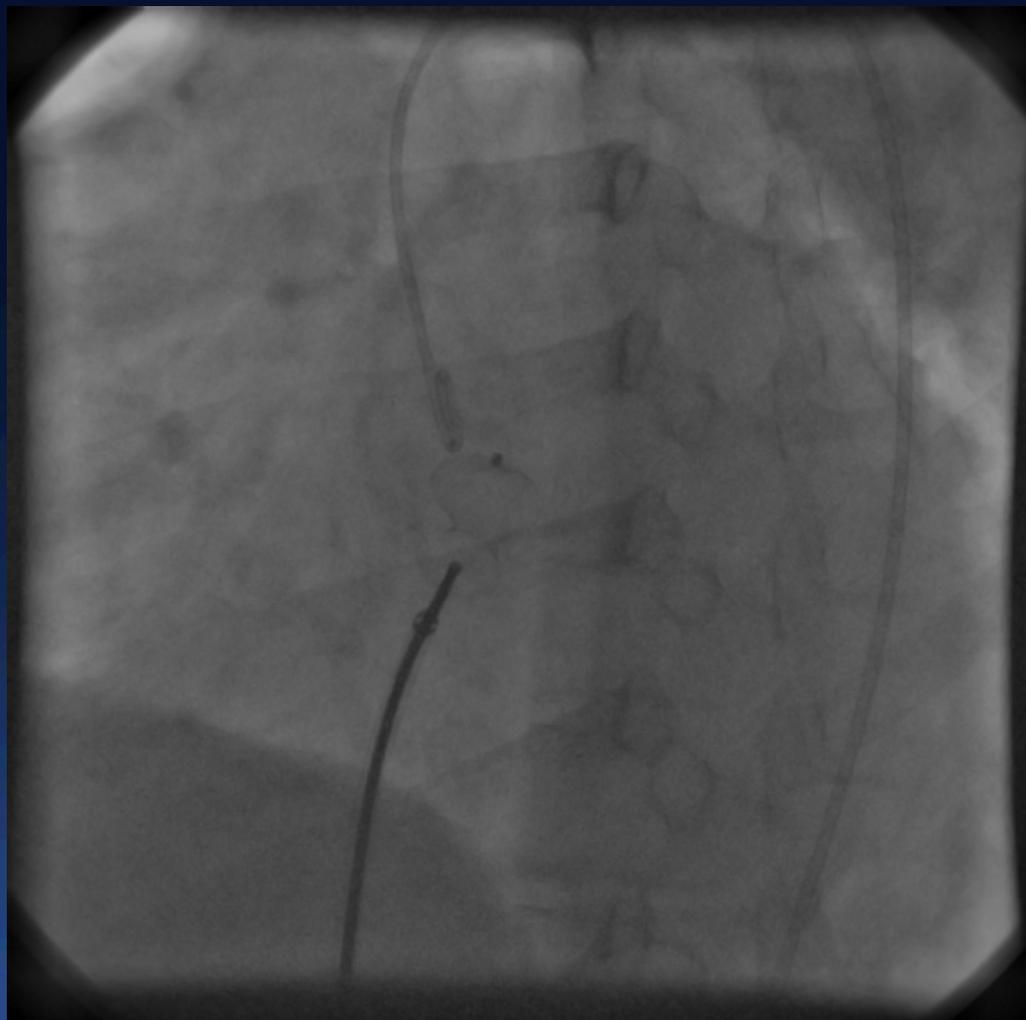
- Patient was given IV amiodarone 150 mg IV and DC verted by 200 Joule Biphasic energy .
- Shifted to cath lab . Arterio venous loop of Extra support wire was made from Aortic root through RSOV to RA and wire was snared out from RA to Right femoral vein .

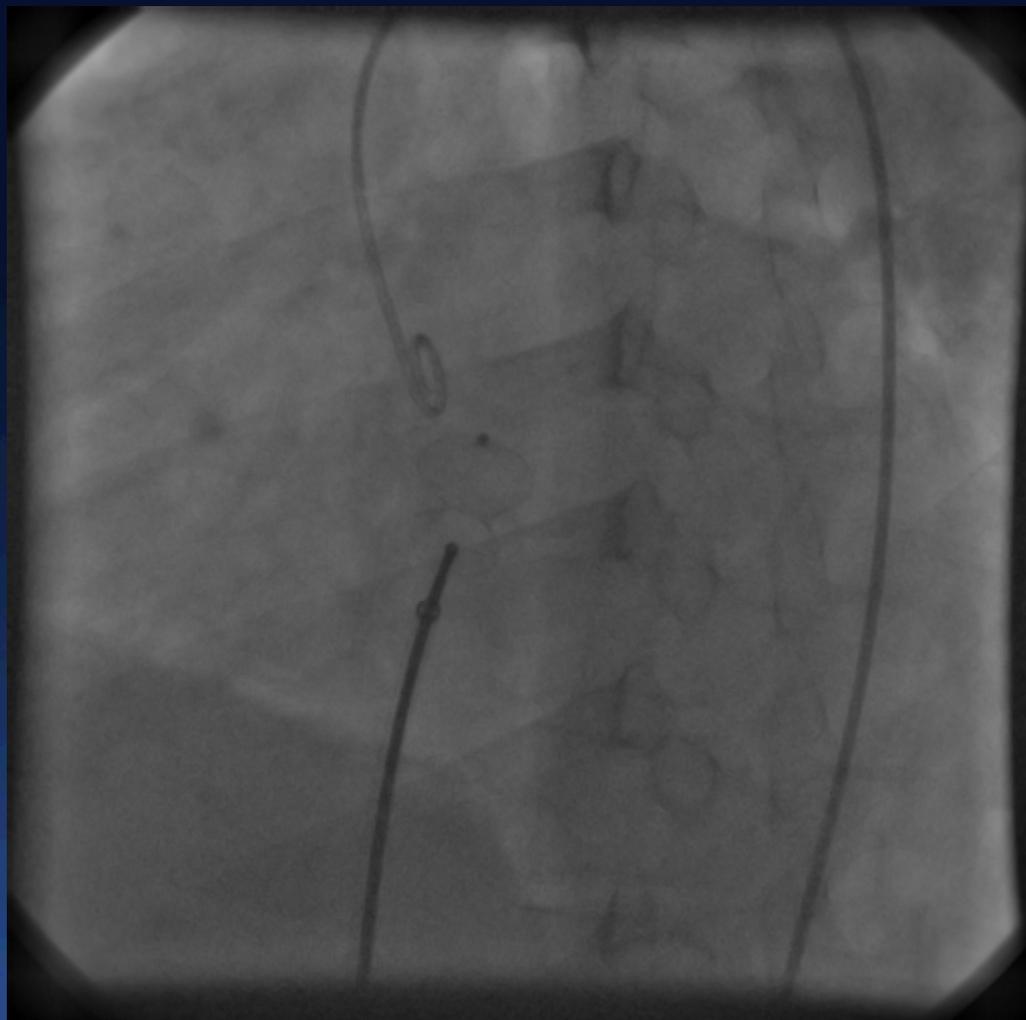
- **10 F Delivery sheath was sheathed in in Descending aorta. 16 mm Amplatzer like PDA device (Heart –R PDA occluder from LifeTech) was loaded and delivered across RSOV and complete closure was achieved immediately.**

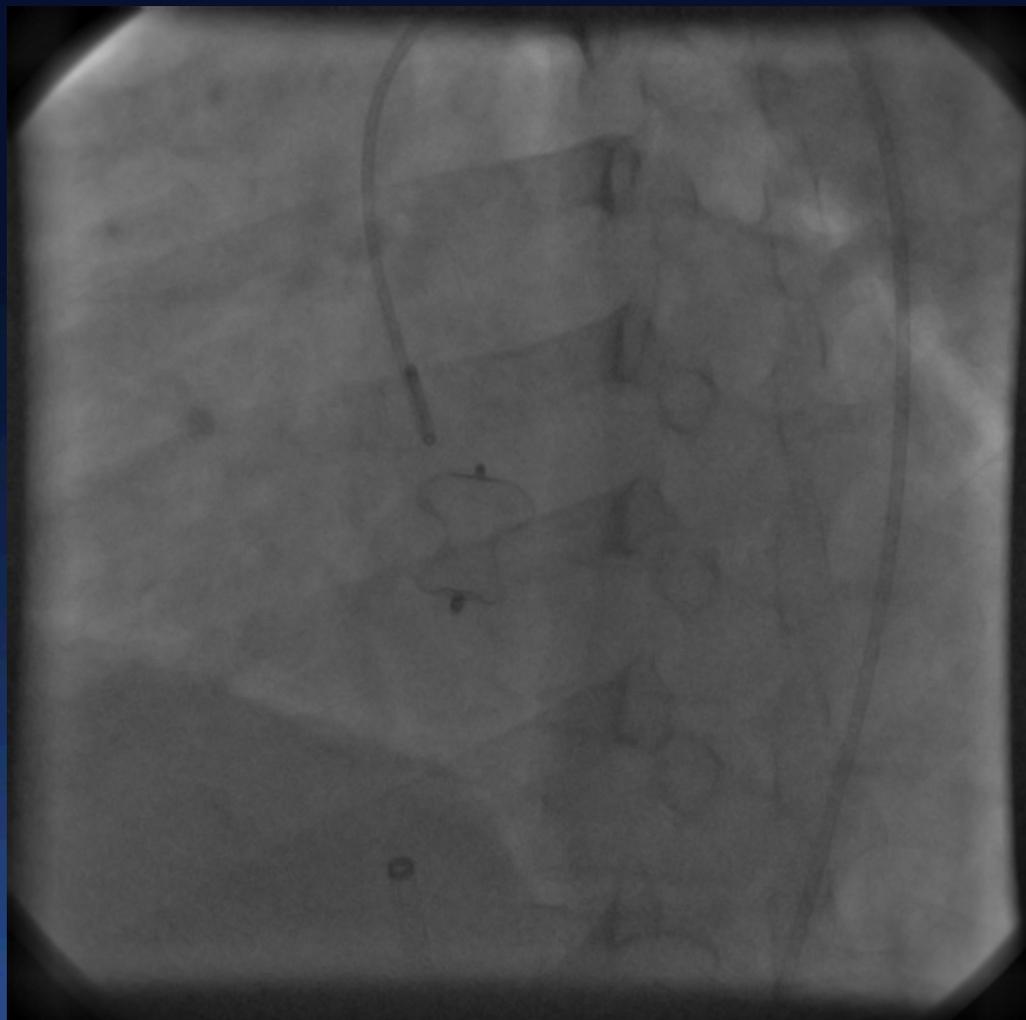












- **Patient had remarkable hemodynamic and clinical recovery and asymptomatic over one year of clinical follow up .**
- **Follow up Echo showed LA, LV size normalized .No shunt across the device seen. No AR.**

Conclusion and Take home message

- **Although surgical treatment is the standard therapy of RSOV aneurysm but can be treated successfully by interventional technique even in critically sick patient and life can be saved.**
- **This interventional technique should be the treatment of choice in current scenario.**

Thank You

