Case Summary. Aneurysm at LVOT is a rare complication after Bentall operation and the aneurysm may increase in size. In that situation transcatheter closure of the LVOT aneurysm can be done safely, especially with a AVP II.

TCTAP C-217
Bilateral Pulmonary Arterio Venus Fistula Managed by Vascular Plugs and Coil
Manotosh Panja
1BelleVue Clinic, India

[CLINICAL INFORMATION]
Patient initials or identifier number. Mr 19
Relevant clinical history and physical exam. 19 year old man presented with history of worsening cyanosis since birth and frequent episodes of haemoptysis.
Systemic examination revealed central cyanosis and clubbing. Cardiovascular examination was essentially normal.
Electrocardiography and 2D echo cardiography was within normal limits.
Resting O2 saturation was 84%.
Relevant test results prior to catheterization.
Relevant catheterization findings. In view of strong suspicion of pulmonary arterio-venous (AV) fistula, CT pulmonary angiogram was done showed multiple pulmonary AV fistulas in both lungs. Among those, right lower lobe and left upper lobe fistula were larger and was aneurysmal dilated.

In view significant recurrent haemoptysis, hypoxia and multiple AV fistulas percutaneous closure of the 2 largest fistulas were planned.
**INTERVENTIONAL MANAGEMENT**

**Procedural step.** After right heart catheterization right lower lobe AV fistula was first identified by multipurpose catheter 25.07.2012

Selectively cannulated by long Amplatz exchange wire through the 14F sheath

16 mm Amplatz type 2 vascular plug was deployed using 14 F delivery sheath.

**Final Result** - closed large right lobe AV fistula

Then left upper lobe AV fistula was engaged similarly 12 mm Amplatz type 2 vascular plug was deployed using 12 F delivery sheath.

**2nd Procedure after 1 year on 28.4.2013**

Vascular Amplatz 6mm deployed in right lower lobe

Another Vascular Plug 6mm deployed in right upper lobe

Another Fistula on mid right lobe - 2 coils deployed

**3rd Procedure after 3 years 27.07.2014**

Vascular Amplatz 16mm deployed in left lower lobe

Vascular plaque closed the large left lower lobe fistula

Another large fistula at the mid zone of the left lobe.

Vascular Amplatz 14mm deployed in left mid lobe

**Case Summary.** Bilateral pulmonary AV Fistula presented with recurrent hemoptysis, severe clubbing and synosis is extremely rare, probably the 1st report of the world.

Vascular Amplatz plugs are very useful, because of, bilateral and large size AV Fistula to save the life of the patient resulting improvement of signs and symptoms including O2 saturation.

After 11 months O2 saturation dropped to 90%. Then 2 small plugs and 2 coils were very useful to close the medium size AV fistula fully. Resulting, O2 saturation is 100% with great symptomatic improvement.
Again prior to 3rd procedure O2 saturation dropped to 88%. Then after the deployment of 2 Vascular Amplatzer plugs in lower and mid lobe respectively, the O2 saturation became 100% and synosis fully disappeared even after exercise.

**TCTAP C-218**

Transcatheter Closure of Mitral Paravalvular Leak via Retrograde Approach Without an Arteriovenous Loop

Wei-Hsian Yin
Cheng Hsin General Hospital, Taiwan

**[CLINICAL INFORMATION]**

Patient initials or identifier number. 18224033

Relevant clinical history and physical exam. 68-year-old gentleman Chief complaint: progressive worsening of dyspnea on exertion for 5 months (NYHA functional class II-III) Past history: mitral valve prolapse with infective endocarditis and severe mitral regurgitation s/p mitral valve replacement (Edwards pericardial valve 29 mm) 2 years ago. Physical examination: regular heart beat, S1S2S3-S4-, grade 3/6 pansystolic murmur over apex, no peripheral pitting edema.

Relevant test results prior to catheterization. Preserved LV & RV systolic function.

* Thickened aortic valve with mild AR.
* Bioprosthetic mitral valve with severe paravalvular leak: 4 mmHg MP, 16 mmHg PPG, MVA = 2.4 cm² by PHT.
* Oval-shape defect about 4-5mm at mitral-aortic fibrous continuity
* Mild to moderate TR, RVSP = 45 mmHg.
* Mild PR.

**[INTERVENTIONAL MANAGEMENT]**

Procedural step.

1. Retrograde approach via common femoral artery
2. Under the guidance of fluoroscopy and TEE, 0.025" guidewire passed through the mitral paravalvular leak but 6F JR4 guiding catheter failed.
3. With the support of double wires and mother-in-child catheter, 5F multipurpose guiding catheter passed through the mitral paravalvular leak and then 6F JR4 guiding catheter passed through the mitral paravalvular leak.
4. We selected 6mm/4mm Amplatzer ductal occluder II (AGA Medical Corp, Plymouth, MN, USA) to plug the leak.
5. Amplatzer ductal occluder II was deployed and only mild residual leak was detected by TEE.

**Relevant catheterization findings.** Left ventriculography: