

**Intervention: Murphy's law in the cath lab:
Tuning a disharmonic Melody into a harmonic pulmonary and tricuspid Concert - why we had a
Christmas party**

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Introduction:

Synchronous transcatheter valve implantation in the pulmonary (PP) and tricuspid (TP) position is not an established approach and only performed on an individualized basis. Here we report on interventional maneuvers that were performed when after uneventful pre-stenting of the right ventricular outflow tract (RVOT) the Melody valve (MV) could not be placed in the desired PP and dislocated from the balloon of the "Ensemble" delivery catheter.

Case Report:

A 28-year old male patient with surgically corrected tetralogy of Fallot presented with signs of venous congestion and pre-syncope due to severe right heart failure caused by severe stenosis of the surgically implanted pulmonary homograft (24 mm) combined with an obstructed bio-prosthesis (27 mm Carpentier-Edwards) in the TP. Following uneventful preparation of the pulmonary "landing zone" (placement of one covered, one uncovered CP-stent and one open-cell-designed Andra-stent) we were unable to advance the "Ensemble" delivery catheter with the pre-mounted MV into PP. The following bailout maneuvers failed: I) partial retraction of the outer shell to enhance the mobility of the MV; II) re-dilation of implanted stents after gaining additional femoral venous access and bypassing the MV with a second guidewire, followed by attempting re-advancement of the MV into the stents; III) retraction of the MV to attempt implantation into the tricuspid position which failed due to dislocation of the MV from the balloon catheter IV) repositioning of the MV onto the balloon by a snare catheter. Implantation was finally achieved by the following technique: the partially funnel-shaped expanded MV was balloon floated within the lower part of the stented RVOT; under rapid pacing and a partially deflated delivery balloon the valved-stent was (via the second femoral vein access) additionally crossed by a coronary balloon catheter. The distal part of the funnel-like MV was gradually dilated by changing the balloons up to a 22mm Atlas catheter and by simultaneous retraction of the Ensemble-system. Finally, a second MV was uneventfully implanted in TP yielding "two Melodies in harmonic concert".

Conclusion:

Endurance in attempting various bailout maneuvers during disharmonic percutaneous interventions may be rewarded by a harmonic result and a Christmas party.