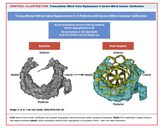
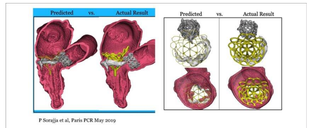
Transcatheter Mitral Valve Implantation in Patients with Mitral Annular Calcification and a Former Aortic Valve Implantation

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INTRODUCTION

- Transcatheter mitral valve implantation (TMVI) has recently emerged as a treatment option for selected high risk patients with symptomatic mitral regurgitation.
- Mitral annular calcification (MAC) has been included as an indication for selected patients,.
- The feasibility of TMVI in patients with previous aortic valve prosthesis, either AVR or TAVI is published by Taramasso et al 2020.
- Technically both MAC and previous AVR/TAVI are challenging in mitral valve replacement

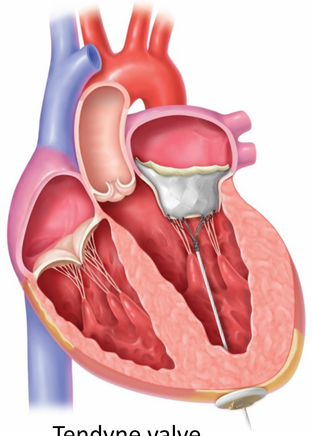






MATERIAL

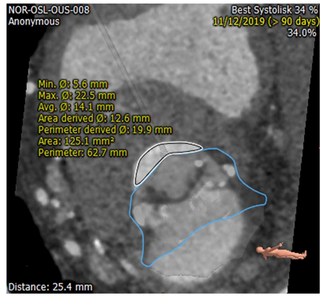
- Three , one female, mean age 72 years, with significant comorbidity and prior aortic valve replacement (mechanical size 23))/TAVI (self-expandable size 26 and 29) were referred to TMVI due to mitral regurgitation, two with combined stenosis. All of them had pacemaker implanted.



Tendyne valve

METHOD

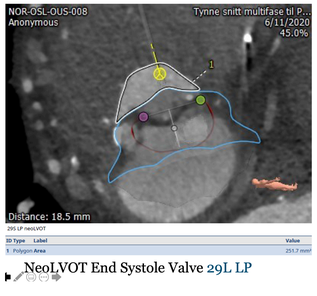
- CT reconstruction was done, and anatomical conditions were acceptable.
- For one patient the reconstruction was initially done with the CT scan pre TAVI and neoLVOT was found too small. A new CT scan was performed and reconstructed. Following TAVI the neoLVOT became big enough to provide a transcatheter mitral valve prosthesis.
- The procedure was performed in general anesthesia with echo and fluoro guidance, balloon valvuloplasty was performed prior to the valve implantation in one case.
- A self-expandable mitral valve secured with an apical tether was used.



Neo LVOT pre TAVI 125 mm²

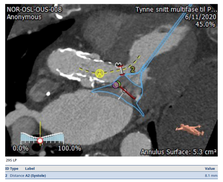


TAVI and MAC

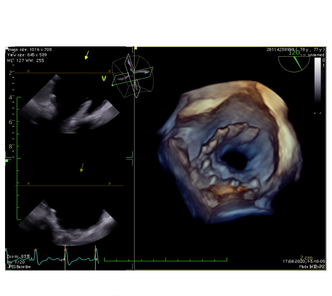


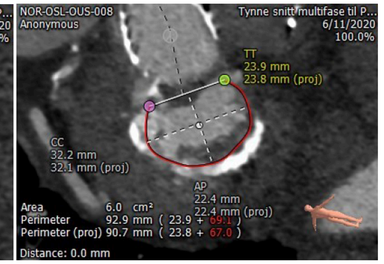
Neo LVOT post TAVI 251 mm²

Smallest	
NeoLVOT	A2 Clearance
251 mm²	8 mm

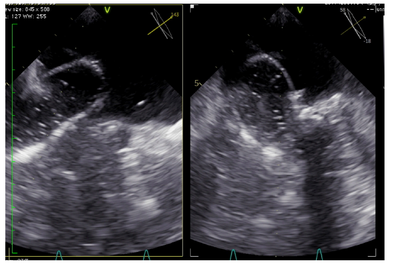


NeoLVOT End Systole Valve 29L LP





Annular segmentation



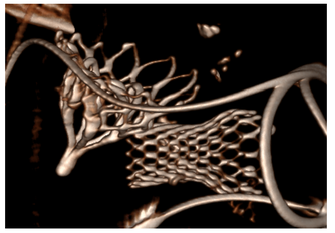
BAV

RESULTS

- All the patients had a successful mitral valve implantation with no paravalvular leakage and a minimal transvalvular mitral pressure gradient with no increase in the LVOT “pull-back” gradient.
- Post-procedural CT-scan documents valve positions and echo showed good valve performance.
- 30 days survival was 100%.
- One patient had cerebral stroke 2 months after the procedure, probably due to mal-compliance regarding anticoagulation.
- One patient died from new lymphoma 19 months after the procedure

CONCLUSION

- **TMVI is feasible in patients with prior aortic valve prosthesis, even in MAC.**
- **This may be a safe solution for selected high risk patients instead of open redo**





Final result, well functioning valve and no intervference wiht the Evolut valve