**Background:** Transcatheter aortic valve implantation (TAVI) in patients with large aortic annuli (>26mm) can be challenging and may be associated with suboptimal results, particularly as regards to post-procedural aortic regurgitation (AR). Recently, Direct Flow Medical (DFM) introduced the 29mm version of their fully repositionable and retrievable valve to treat aortic annuli measuring 26 to 28.5mm.

**Methods:** All consecutive patients successfully implanted with a 29mm DFM valve between December 2013 and May 2014 were retrospectively analyzed in this multicenter European study. Endpoints were defined according to VARC-2 criteria periprocedurally and at 30 days.

**Results:** A total of 36 high- and extreme-risk patients with severe aortic stenosis were implanted with a 29mm DFM valve. The mean age of patients was 82±4.6 years and 90% were males. The average annular diameter and perimeter were 27±4.1mm and 86.8±3.4mm, respectively. The 29mm DFM was oversized in relation to the native annulus by 4.9±3.9% by diameter and 5.0%±4.0% by perimeter. Implantation of the 29mm DFM resulted in a reduction of mean transaortic gradient from 41.9±15.8mmHg to 6.1±5.1mmHg. Device success was achieved in 97% of patients. Implantation of a DFM valve was associated with none or trivial AR in 81%, mild AR in 17%, and moderate AR in 1% (2%) patient. There were no coronary occlusions, device embolizations, annular rupture or intraprocedural deaths. Complete 30-day outcomes will be available and presented at the meeting.

**Conclusions:** The Direct Flow Med Transcatheter Aortic Valve System was associated with excellent periprocedural outcomes and virtually eliminated AR in patients with aortic stenosis and a large annulus.

**TCT-711**

**PROCEDURAL AND CLINICAL OUTCOMES OF SUBCLAVIAN VERSUS TRANSAORTIC APPROACH FOR TRANSCATHETER AORTIC VALVE REPLACEMENT WITH SELF-EXPANDABLE COREVALVE: AN ITALIAN MULTICENTER EXPERIENCE**

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**Background:** Transfemoral aortic valve replacement (TAVR) is the preferred approach for transcatheter aortic valve replacement (TAVR). When not feasible, alternative approaches such as subclavian or direct ascending aorta (transaortic route) are used for self-expandable CoreValve implantation. Aim of this work was to compare the safety of TAVR with self-expandable valve through these alternative vascular approaches.

**Methods:** All consecutive patients underwent TAVR with self-expandable valve through these alternative vascular approaches.

**Results:** Among 1049 patients undergoing CoreValve implantation between September 2007 and February 2014, 242 (23%) have been treated through alternative access: subclavian (147/242, 61%) and transaortic (95/242, 39%) route because of peripheral artery disease. Demographic features were quite similar in both groups regarding the baseline characteristic were observed among both groups. Balloon post-dilatation was performed more frequently after implantation of the SXT than S3 prosthesis (30.8% vs. 8.4%, p<0.01). The incidence of relevant aortic regurgitation pre- and post-procedure was significantly higher among SXT group (Figure).

**Conclusions:** The third generation balloon-expandable Sapien 3 is safer and more feasible compared to the second generation Sapien XT valve system.

**TCT-712**

**Better Outcomes with Sapien 3 vsSapien XT balloon-expandable prosthesis in patients undergoing transfemoral aortic valve replacement**

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**Background:** Residual regurgitation remains a limitation of the early generations of aortic prostheses and is associated with increased mortality. Thus newer devices have been developed to address this complication. The aim of this study was to assess performance of second generation Sapien XT (SXT) vs. the third generation Sapien 3(S3) in patients with severe aortic stenosis (AS) undergoing transfemoral aortic valve implantation (TAVI).

**Methods:** We analyzed a total of 413 patients undergoing implantation of balloon-expandable Sapien prosthesis in our institution treated whether with SXT (n=354) or the S3 (n=59).Outcomes were defined according to the standardized Valve Academic Research Consortium-2 criteria (VARC-2).

**Results:** Mean age of the TAVI patients was 80.7±7.6 years, 55% of them were women and median prosthesis size was 26mm. No differences regarding the baseline characteristic were observed among both groups. Balloon post-dilatation was performed more frequently after implantation of the SXT than S3 prosthesis (30.8% vs. 8.4%, p<0.01). The incidence of relevant aortic regurgitation directly after procedure and of device failure was significantly higher among SXT group (Figure).

**Conclusions:** The second generation balloon-expandable CoreValve 3 is safer and more feasible compared to the previous generation CoreValve XT valve system.