Conclusion: Transfemoral commercial use of the Edwards SAPIEN valve for inoperable patients shows similar in-hospital mortality and stroke rates compared to PARTNER Cohort B. The refinements in the procedure, such as more conscious sedation, experience of the operators and careful vascular planning in the commercial group led to lower vascular and bleeding complications and shorter length of stay.

Results: TA patients were older (84.90±5.22 vs. 83.05±8.04 years; p<0.05), had higher incidence of peripheral vascular disease (37.3% vs. 31.6%; p<0.001) and higher Society of Thoracic Surgeons Score (11.13±4.52 vs. 9.50±4.47; p=0.002). No differences were noted in the stroke rate (TA-4.7% vs. 6.2%; p=0.55). TF access was associated with higher rates of major vascular complications (10.4% vs.3.7%; p=0.03) but the rate of life threatening bleeding and post-procedural acute kidney injury were higher in the TA group (14.0% vs. 5.0%; p=0.002 & 3.1% vs.0.3%; p<0.04, respectively). These disparities translated into longer hospital stay (TA-11.81±9.97 vs. TF-8.54±6.11 days; p=0.002), higher rates of 30-days and 1 year mortality rates in the TA patients (18.5% vs.5.6%; p<0.001, 30.6% vs. 18.9%; p=0.01). A landmark analysis (figure) demonstrated that beyond 30 days, no difference were noted in the mortality (log rank for 30d<p<0.001; for 1 year p=0.93).

Conclusion: TA is an alternative for TF-TAVR and was reserved for patients with higher rate of co-morbidities and contraindicated to TF. TA access was further associated with higher rates of post-procedural morbidity and mortality mainly in the first month after the procedure. The further development of smaller caliber sheaths will hopefully mitigate the use of TA or other alternative access sites.

Trans Apical Transcatheter Aortic Valve Replacement is Associated with Higher Mortality Rates Compared with Trans-Femoral

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Background: Trans-apical (TA) access is an alternative to the more common transfemoral (TF) access for Transcatheter Aortic Valve Replacement (TAVR). The impact of the access site on outcome is not clearly established.

Methods: All patients undergoing TAVR (n=446) by accessing through either TA (n=108; 24.2%) or TF (n=338; 75.8%) were included for the comparison of baseline characteristics, procedural data and outcome.

Results: TA patients were older (84.90±5.22 vs. 83.05±8.04 years; p<0.05), had higher incidence of peripheral vascular disease (37.3% vs. 31.6%; p<0.001) and higher Society of Thoracic Surgeons Score (11.13±4.52 vs. 9.50±4.47; p=0.002). No differences were noted in the stroke rate (TA-4.7% vs. 6.2%; p=0.55). TF access was associated with higher rates of major vascular complications (10.4% vs.3.7%; p=0.03) but the rate of life threatening bleeding and post-procedural acute kidney injury were higher in the TA group (14.0% vs. 5.0%; p=0.002 & 3.1% vs.0.3%; p<0.04, respectively). These disparities translated into longer hospital stay (TA-11.81±9.97 vs. TF-8.54±6.11 days; p=0.002), higher rates of 30-days and 1 year mortality rates in the TA patients (18.5% vs.5.6%; p<0.001, 30.6% vs. 18.9%; p=0.01). A landmark analysis (figure) demonstrated that beyond 30 days, no difference were noted in the mortality (log rank for 30d<p<0.001; for 1 year p=0.93).

Conclusion: TA is an alternative for TF-TAVR and was reserved for patients with higher rate of co-morbidities and contraindicated to TF. TA access was further associated with higher rates of post-procedural morbidity and mortality mainly in the first month after the procedure. The further development of smaller caliber sheaths will hopefully mitigate the use of TA or other alternative access sites.

Gender Differences in Clinical Presentation, and Outcomes of Patients Undergoing Balloon Aortic Valvuloplasty

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Background: Balloon aortic valvuloplasty (BAV) is being used more and more as a bridging procedure to more definitive surgery or TAVR. The present study aims at evaluating the gender differences in clinical characteristics and outcomes of patients undergoing BAV in TAVR era.

Methods: From April 2009 to August 2012, the data from 331 BAV procedures done on patients with severe symptomatic AS were prospectively entered into a dedicated database. Clinical, hemodynamic, procedure and outcome data were collected. All events were defined according to Valve Academic Research Consortium [VARC] criteria.

Results: The study cohort included 331 patients with mean age 82.5±10.2 years and mean aortic valve area 0.61±0.20. Men constitute 46% of the study population. Prior history of coronary artery disease (CAD), prior CABG, and lower EF [25-40%] were higher in men compared to women at presentation. On the other hand women had higher Society of Thoracic Surgeons (STS) score (p=0.006). There were no significant differences in the procedural characteristics except for significantly smaller balloon size (p<0.001) in women compared to men. Procedure complications similar both groups (overall 7%). All cause mortality 30 day and 1 year [28.5% vs. 34.2%, p=0.3] similar in both groups.

Conclusion: Women have higher STS score and men have higher CAD burden at presentation though the procedure outcomes, in hospital complications and one year all cause mortality after BAV have been similar.