**TRENDS IN TRANSCATHETER AORTIC VALVE REPALCEMENT (TAVR) CHARACTERISTICS AND OUTCOMES: A SINGLE CENTER EXPERIENCE**

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*Objectives:*Compare temporal trends in patients undergoing TAVR at our institution.

*Background:*TAVR is the preferred treatment option for high-risk and inoperable patients with severe aortic stenosis.

*Methods:*We retrospectively analyzed data from patients undergoing TAVR between 6/2012 and 11/2015. Patients were divided into 2 groups.

*Results:*The mean age was 81.7 ± 9.0 (A) years versus 80.0 ± 9.5 (B) (p=0.21). STS scores trended down with a mean of 8.7 ± 4.5 (A) and 7.3 ± 4.4 (B) (p=0.03). Transfemoral (TF) access increased from 52.1% (n=73) to 77.6% (n=59) (p<0.001). Self-expandable valve use increased from 12.9% (A) to 42.1% (B) (<0.001). Moderate to severe paravalvular regurgitation was low in both groups (0.7% and 0.0%, p=NS). Stroke (5.0 vs. 1.3%) and vascular complications (7.9 vs 3.9%) were lower in B relative to A.

*Conclusions:* We observed an increase in TF access and self-expandable valves in 2015.

Table. Clinical Characteristics and Outcomes

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  Parameter | Overall (n=216) | **2012 – 2014 (n=140)** | **2015 (n=76)** | p |
| **Clinical Characteristics** |  |  |  |  |
|  Age (years) | 81 ± 9.2 | 81.7 ± 9.0 | 80.0 ± 9.5 | 0.21 |
|  Male gender  | 50.5% (109) | 50.7% (71) | 50.0% (38) | 0.92 |
|  STS Score | 8.2 ± 4.5 | 8.7 ± 4.5 | 7.3 ± 4.4 | 0.03 |
| *Procedural Characteristics* |  |  |  |  |
|  Transfemoral Access | 61% (132)  | 52.1% (73) | 77.6% (59) | <0.001 |
|  Transapical / Alternate Access | 39% (84) | 47.9% (67) | 22.4% (17) | <0.001 |
|  Balloon-Expandable Valve | 77% (166) | 87.1% (122) | 57.9% (44) | <0.001 |
|  Self-Expandable Valve | 23% (50) | 12.9% (18) | 42.1% (32) | <0.001 |
|  Valve Size (mm) | 25.9 ± 2.5 | 25.5 ± 2.2 | 26.8 ± 2.7 | <0.001 |
| *Outcomes* |  |  |  |  |
|  Stroke |  3.7% (8) | 5.0% (7) | 1.3% (1) | 0.27 |
|  Vascular Complications |  6.5% (14) | 7.9% (11) | 3.9% (3) | 0.39 |
|  Paravalvular Leak (≥ moderate) |  0.5% (1) |  0.7% (1) |  0.0% (0) |  1.00 |
|  Pacemaker Placement  |  9.7% (21) | 8.6% (12) | 11.8% (9) | 0.44 |
|  Length of Stay (days) | 7.4 ± 8.5 | 7.8 ± 7.4 | 6.8 ± 10.3  | 0.43 |
|  Mortality at 30 Days | 6.9% (15) | 7.9% (11) | 5.3% (4) | 0.58 |