**A1:** Average aneurysm dimensions, RSC diameters, and aorta diameters, for the 90- and 180-day cohorts treated with Flex and Vantage. All dimensions are mean ± standard deviation (SD).

<table>
<thead>
<tr>
<th>Device</th>
<th>Study Duration (days)</th>
<th>Aneurysm Height (mm)</th>
<th>Aneurysm Width (mm)</th>
<th>Aneurysm Neck (mm)</th>
<th>RSC diameter (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flex</td>
<td>90±2</td>
<td>6.92±1.28</td>
<td>3.46±0.56</td>
<td>3.96±1.92</td>
<td>3.30±0.25</td>
</tr>
<tr>
<td>Vantage</td>
<td>90±2</td>
<td>7.12±2.15</td>
<td>3.22±0.59</td>
<td>3.29±1.08</td>
<td>3.12±0.29</td>
</tr>
<tr>
<td>Flex</td>
<td>180±2</td>
<td>6.39±1.72</td>
<td>2.82±0.43</td>
<td>3.57±1.73</td>
<td>3.28±0.44</td>
</tr>
<tr>
<td>Vantage</td>
<td>180±2</td>
<td>5.34±1.13</td>
<td>2.66±0.40</td>
<td>2.85±1.04</td>
<td>3.00±0.39</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Device</th>
<th>Study Duration (days)</th>
<th>Aorta diameter (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flex</td>
<td>90±2</td>
<td>3.08±0.30</td>
</tr>
<tr>
<td>Vantage</td>
<td>90±2</td>
<td>2.86±0.25</td>
</tr>
<tr>
<td>Flex</td>
<td>180±2</td>
<td>3.18±0.28</td>
</tr>
<tr>
<td>Vantage</td>
<td>180±2</td>
<td>3.27±0.21</td>
</tr>
</tbody>
</table>
A2: Histopathology attributes and grading scale for the tissue sections from Flex and Vantage implanted vessels for 90- and 180- day cohorts. Grading was performed by an independent pathologist blinded to device.

**Luminal/Mural Thrombus**
Grade 0: No luminal thrombus
Grade 1 (Minimal): Occupies ~ <5% of the lumen area
Grade 2 (Mild): Occupies ~5-35% of the lumen area
Grade 3 (Moderate): Occupies ~35-70% of the lumen area
Grade 4 (Marked/Severe): Occupies ~ >70% of the lumen area

**Endothelial Cell Coverage**
Grade 0 (Absent): ~ <5% of the luminal surface covered
Grade 1 (Minimal): ~ 5-25% of the luminal surface covered
Grade 2 (Mild): ~ 25-50% of the luminal surface covered
Grade 3 (Moderate): ~ 50-90% of the luminal surface covered
Grade 4 (Complete): ~ >90% of the luminal surface covered

**Inflammation** (neointimal, medial, and adventitial)
Grade 0: No inflammatory response
Grade 1: Minimal response
Grade 2: Mild response
Grade 3: Moderate response
Grade 4: Marked/Severe response

**Fibrin**
Grade 0: Not present
Grade 1: Minimal
Grade 2: Mild
Grade 3: Moderate
Grade 4: Marked/Severe

**Medial Smooth Muscle Cell (SMC) Loss**
Grade 0: No medial SMC loss
Grade 1: Minimal ~ <5% medial SMC loss
Grade 2: Mild ~ 5-25% medial SMC loss
Grade 3: Moderate ~ 25-50% medial SMC loss
Grade 4: Marked/Severe ~>50% medial SMC loss

**Disruption of the Internal Elastic Lamina (IEL) and External Elastic Lamina (EEL)**
Grade 0: No disruption
Grade 1: Minimal ~ <5% disruption
Grade 2: Mild ~ 5-25% disruption
Grade 3: Moderate ~ 25-50% disruption
Grade 4: Marked/Severe ~ >50% disruption
Adventitia

Grade 0: No changes present
Grade 1: Minimal ~<5% affected
Grade 2: Mild ~5-25% affected
Grade 3: Moderate ~26-50% affected
Grade 4: Marked/Severe ~>50% affected
A3: Raymond Roy Occlusion Classification (RROC) for the 90- and 180-day cohorts treated with Flex and Vantage devices.