

P93. The Interleaflets Triangles Configuration Focused On Aortic Valve Repair

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OBJECTIVES: We assumed from our clinical practice that isosceles interleaflets triangles are normal, equilateral ones manifestation of mild ventriculo-arterial junction dilatation and obtuse-angled of severe dilatation but not much we know about relationship between the three of them in the patient with a normal aortic root

METHODS: 16 hearts, from consecutive post-mortem examination belonging to subjects that succumbed for non-cardiac events and with negative history for valve abnormalities, were selected. The aortic root was isolated, sectioned at the midpoint of the non-coronary sinus, completely spread apart and photographed by a high resolution digital camera. The AutoCAD 2004 software (© Autodesk) was used to identify and measure all the triangles components (angles, area, perimeter, base/height ratio) after calibration and picture resizing. Differences were evaluated by Student T test and Analysis of Variance

RESULTS: We were able to identify four different possible triangles depending from the referent points used. Taking in account the one more representative for the surgeon analysis (called "surgical triangle") defined by the peak as the uppermost meeting point between the leaflet insertion lines and by its edges as two segments tangent to the uppermost part of the leaflet insertion line projected to meet the base, we measured the areas and the peak angles as follow: Non Coronary-Left Coronary $59.48 \pm 15.74 \text{ mm}^2$, $50.25 \pm 7.27^\circ$; Left-Right Coronary $46.93 \pm 16.91 \text{ mm}^2$ ($p=0.038$), $45.44 \pm 12.39^\circ$ ($p=ns$) and Right-Non Coronary $48.02 \pm 11.62 \text{ mm}^2$ ($p=0.055$), $48.31 \pm 12.17^\circ$ ($p=ns$).

CONCLUSIONS: Normal interleaflet triangles are acute-angled. They are different and during an aortic valve repair procedure they have to be treated in different way.

Interleaflets Triangles

