The natural history of the bicuspid aortic valve and bicuspid aortopathy

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Efforts over the past few years have focused on defining individual risk factors for disease progression in patients with bicuspid aortic valve (BAV) and aortopathy. The risks associated with BAV aortopathy may be less than previously believed. This statement is based on contemporary natural history studies and key comparisons to those with tricuspid aortic valve disease and genetic connective tissue aortopathies. More conservative and selective approaches to prophylactic aortic resection may be indicated, particularly in patients with BAV stenosis. Using newer state-of-the-art imaging modalities, novel data supports valve-mediated hemodynamics as a critical mediator of disease progression in BAV aortopathy. However, there remains a substantial gap in knowledge with respect to BAV aortopathy, acutely in the pathophysiology and molecular mechanisms of disease progression. There is a critical need to develop individualized risk assessments beyond size and growth criteria to offer more precise and individualized strategies for surgical resection of the aorta in BAV patients.

**Key References:**


