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Aortic valve disease: multimodality imaging for risk stratification and evaluation of therapy

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AORTIC VALVE DISEASE

MULTIMODALITY IMAGING FOR RISK STRATIFICATION AND EVALUATION OF THERAPY

1. Implementation of a newly proposed staging system for extra-aortic valvular cardiac damage in future risk models, in particular the components of advanced stages of cardiac injury, could potentially aid in the risk stratification of patients with severe aortic stenosis. (*This thesis*)
2. The addition of left ventricular global longitudinal strain to a newly proposed staging classification based on cardiac damage may enhance risk stratification of patients with severe aortic stenosis, especially when staging of cardiac damage based on conventional echocardiography suggests limited cardiac damage. (*This thesis*)
3. The assessment of left ventricular global longitudinal strain holds promise in the risk assessment of asymptomatic severe aortic stenosis. (*This thesis*)
4. Severe aortic stenosis is currently regarded as a disease not limited to the aortic valve but also affecting the left ventricular myocardium. (*This thesis*)
5. The proposed multi-parametric stratification system for cardiac damage in severe aortic stenosis may synergistically help to better define the optimal timing of aortic valve replacement by focusing on the consequences and mechanical repercussions of aortic stenosis. (*Généreux P. et al., Eur Heart J. 2017;38(45):3351-8*)
6. There is an urgent need to develop an individualized strategy that would allow the cardiologist to select the best timing of aortic valve replacement for the given asymptomatic patient with severe aortic stenosis. (*Tastet L. et al. J Am Coll Cardiol. 2019;74(4):538-49*)
7. A certain threshold of impaired longitudinal systolic function signifies a high burden of myocardial dysfunction as well as accumulation of irreversible changes. (*Argulian E. et al., J Am Coll Cardiol Img. 2019;12(1):93-95*)
8. Transthoracic echocardiography remains the quintessential imaging modality for the non-invasive characterisation of aortic stenosis due to its widespread availability, superior assessment of flow hemodynamics, and a wealth of prognostic data accumulated over decades of clinical utility and research applications. (*Chong A. et al., Heart Lung Circ 2019;28(9):1310-19*)
9. More important than the quest for certainty is the quest for clarity. (*Francois Gautier, 2013*) - *Knowledge comes without guarantees.*
10. Success consists of going from failure to failure without a loss of enthusiasm. (*Winston Churchill, 1874-1965*) - *In the face of many challenges, never lose your optimism.*
11. It is good to have an end to journey toward, but it is the journey that matters in the end. (*Ur-sula K. Le Guin, 1929-2018*) - *Don't forget to appreciate the experience of the adventure that leads to your destination.*