

**PACEMAKER-INDUCED TRICUSPID REGURGITATION IS UNCOMMON IMMEDIATE POST-IMPLANT**

Poster Contributions
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Background: Prior studies report permanent pacemaker (PPM) induced tricuspid regurgitation (TR) in 1/3rd of cases late (average 3.8 years) post-implant. Two proposed device-related mechanisms might be expected to occur at different time frames, with mechanical valve impingement early and lead-related fibrosis late. Accordingly, we sought to assess the extent of immediate PPM-induced TR.

Methods: We prospectively enrolled 33 patients undergoing PPM implant. To focus solely on device-induced TR, patients with pre-existing moderate or severe TR were excluded. Pre- and immediate post-implant 2D and Doppler echocardiographic parameters analyzed included right ventricle and right atrial chamber size and TR grade according to established methods.

Results: Of 33 patients, 3 were excluded due to baseline moderate or severe TR. In the remaining cohort (n=30), at baseline pre-implant trace TR was present in 20 pts (66%) whereas mild TR was evident in 10 (33%) others. Immediate post-implant echo showed no increase in TR grade in 26 pts (87%), whereas a 1-grade increase from trace to mild occurred in 4 (13%) others. In no patient did immediate moderate or severe TR develop.

Conclusions: These findings show that significant PPM-induced TR is uncommon immediately post-implant. Whether late device-induced TR results from chronic lead-induced tricuspid valve damage versus cardiomyopathic disease progression needs to be delineated.