**DO FASCICULAR BLOCKS CAUSE MITRAL REGURGITATION?**

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*Objective/Background*: The anterior fascicle of the left bundle branch supplies the anterolateral papillary muscle while the posterior fascicle supplies the posteromedial papillary muscle. We therefore sought to see whether fascicular blocks (FB) may contribute to mitral regurgitation (MR).

*Methods*: This was an observational study of 300 consecutive patients with right bundle branch block (RBBB) and either left anterior FB (LAFB), left posterior FB (LPFB), or no FB. Patients were selected with background RBBB because isolated LPFB is rare. 284 patients had 2D echocardiography within 3 months of the EKG.

*Results*: Ninety-five patients had LAFB, 90 patients had LPFB, and 99 had no FB. Presence of MR was significantly higher among patients with FB (table). Comparing LAFB with LPFB there was no significant difference in presence of MR. Among patients with MR, 75% were trace/mild in those with FB vs 83% with no FB; there was no significant difference in the severity of MR between groups. On multivariate analysis (adjusted for age, sex, race, ejection fraction, wall motion abnormality [WMA], acute MI, coronary arterial disease, atrial fibrillation/flutter) FB remained a significant predictor of MR (p=0.04, OR 1.68, 95% CI [1.02-2.78]).

*Conclusion:* Fascicular block is associated with an increased prevalence of MR.

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