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LEFT BUNDLE BRANCH BLOCK IS NOT INDEPENDENTLY ASSOCIATED WITH LONG TERM MORTALITY AMONG PATIENTS WITH PRESERVED LEFT VENTRICULAR EJECTION FRACTION

Poster Contributions
Hall C
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Background: Left bundle branch block (LBBB) is associated with left ventricular (LV) dysfunction and adverse outcome in patients with heart failure (HF). Little is known about the impact of LBBB in individuals with preserved LV ejection fraction on long term clinical outcomes. We examined the association between LBBB and all-cause mortality in outpatients with preserved LVEF.

Methods: The Duke Echocardiographic Laboratory Database was linked to the institutional ECG database and clinical information to obtain a cohort of outpatients with an echocardiogram and ECG within 30 days. Patients were excluded if they had an LVEF<50%, more than mild valve disease or prior valve replacement, a history of acute MI, current atrial fibrillation or life expectancy under one year due to non-cardiac disease. The presence of LBBB was based on the automated ECG interpretation algorithm used in the clinical ECG system. The association between LBBB and all cause mortality was analyzed using Cox proportional hazards models with multivariable adjustment.

Results: A total of 18,920 outpatients fulfilled the inclusion criteria of which 247 had LBBB (1.3%). LBBB was associated with age, male sex, LV hypertrophy and a higher prevalence of cardiovascular risk factors including diabetes, hypertension and renal disease. During follow-up, 2937 patients died (15.5%) with LBBB being associated with an increased risk of death in unadjusted analysis (HR: 1.45; 95%CI: 1.11-1.90, p=0.007). After adjustment for age, gender, hypertension, diabetes, peripheral artery disease, renal disease, smoking, chronic obstructive pulmonary disease, prior stroke, heart failure, PR-interval, LVEF and LV hypertrophy; LBBB was not independently associated with mortality (HR: 1.02; 95%CI: 0.78-1.34, p=0.86)

Conclusions: In this cohort of outpatients referred for echocardiographic examination, LBBB was not associated with adverse long term outcome after adjustment for confounding factors. The clinical significance of LBBB in outpatients with preserved LVEF is uncertain.