PREVALENCE AND LONG TERM PROGNOSIS OF PATIENTS WITH COMPLETE LEFT BUNDLE BRANCH BLOCK AND WITHOUT A PRIOR HISTORY OF HEART DISEASE REFERRED FOR NUCLEAR STRESS SPECT

ACC Moderated Poster Contributions
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Authors: Azhar Supariwala, Seth Uretsky, Sonal Kamalia, Narasimhanaidu Guriñijakunta, Madhusudhan Ponnala, Lakshmi Prasad Ravipati, Dinesh Gaddam, Alan Rozanski, St. Luke's Roosevelt Hospital Center, New York, NY, USA

Background: LBBB is an independent predictor of mortality in patients with coronary artery disease and heart failure. Whether patients with LBBB, no prior heart disease, and a normal stress SPECT MPI are at high risk has not been previously studied.

Methods: We studied 7,881 patients without a history of heart disease who were referred for stress SPECT MPI. LBBB was determined on resting ECG. Patients were divided into 4 groups depending on the presence of LBBB and the SPECT MPI results (normal vs. abnormal). Patients were followed for mean of 8 ± 4.2 yrs for all-cause mortality assessed using the SSDI.

Results: There were 110 (1.4%) patients with LBBB at the time of SPECT MPI. Patients with LBBB were older and more likely to be hypertensive and to undergo pharmacological stress. There were 1,684 (21%) deaths. After adjusting for age, gender, CAD risk factors, stress mode, and using patients without LBBB and a normal SPECT as the reference, patients with LBBB patients and a normal SPECT had no increased risk for death (HR = 0.9, 95% CI 0.5-1.6). However, among patients with an abnormal SPECT, those with LBBB (1.6, 95% CI 1.01 - 2.5; p<0.05) had a greater risk for all-cause mortality than those without LBBB (HR 1.3, 95% CI 1.2 - 1.5; p<0.001) (Figure).

Conclusions: In patients without any prior CAD, patients with a LBBB and a normal SPECT did not have a worse prognosis than those without a LBBB over long-term follow-up. Further study is needed to better determine the patient cohorts in whom the presence of a LBBB portends worse outcomes.