

Rate-Related Complete Left Bundle Branch Block: A Rare Phenomenon With Exercise Stress

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A 55-year-old nonsmoker male with a prior history of hypertension and obstructive sleep apnea presented for an exercise stress test to evaluate for palpitations. During his exercise treadmill stress test, he had a rate-related left bundle branch block (LBBB) during the peak stress without any ischemic ST-T wave abnormalities on electrocardiogram (ECG). He did not experience any chest pain, shortness of breath, dizziness, lightheadedness, or palpitations during the test and remained completely asymptomatic for the duration of the test. The stress test was stopped, which eventually led to the termination

of the LBBB as observed in the recovery stage of the ECG (Figure).

It is rare to observe exercise-induced LBBB during routine clinical exercise stress testing, with an incidence of <1% in all patients undergoing an exercise stress test. Patients who show this finding have considerably higher all-cause mortality rates than those with normal exercise tolerance test results.¹ The higher mortality rate is mainly linked to age as well as the association with coronary artery disease (CAD) and/or heart failure. Therefore, it is crucial to conduct further evaluation in such cases.^{1,2} ■

References

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Disclosures: The authors report no conflicts of interest regarding the content herein.

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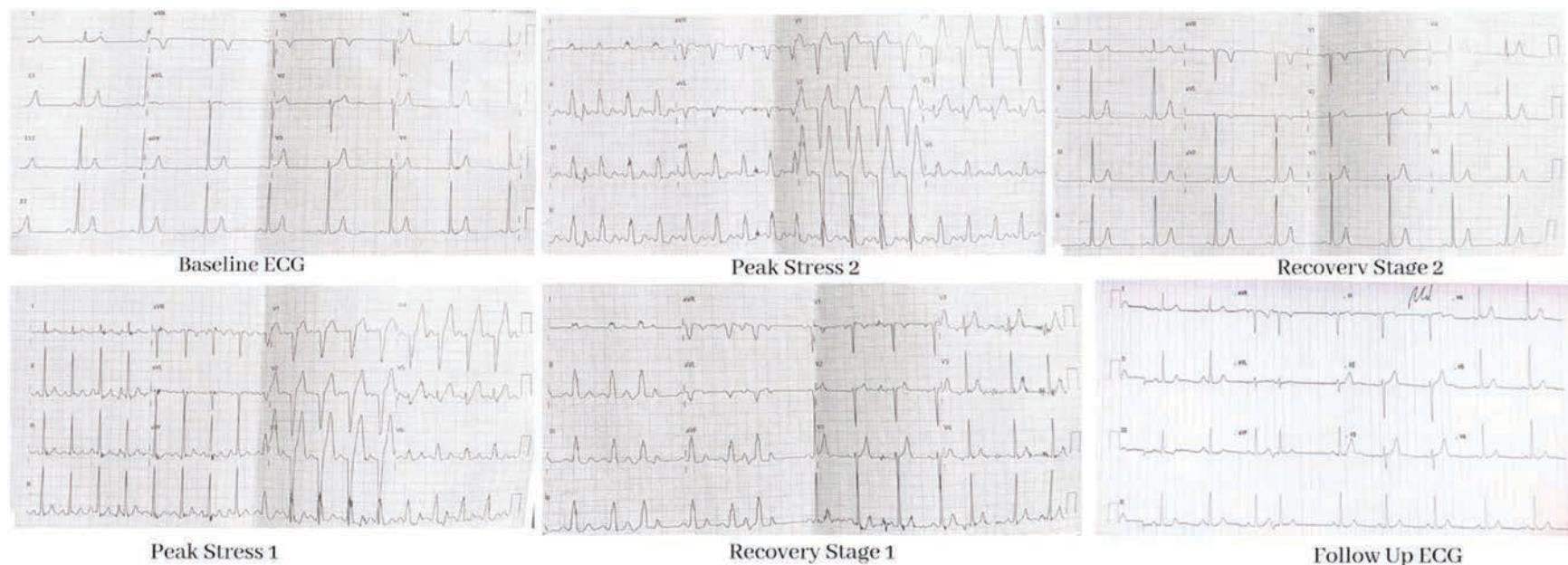


Figure.