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What is the prognostic significance of asymptomatic left bundle branch block?

Evidence-Based Answer

In the absence of structural heart disease, left bundle branch block (LBBB) in an asymptomatic patient has not been shown to confer greater all-cause mortality risk. (SOR **B**, based on a single cohort study.) However, asymptomatic LBBB is associated with later development of heart failure and with cardiac death (SOR **B**, with a single cohort study reporting each association).

The prevalence of LBBB increases with advancing age.¹⁻⁵ In patients <39 years, the prevalence is <0.5% increasing to >6% in patients >80 years of age.^{2,3} LBBB can be a marker for heart disease such as valvular disease, coronary artery disease, or cardiomyopathy. However, LBBB can also be seen in patients with no apparent heart disease. In these latter cases, LBBB is thought to represent a primary conduction disorder.

In a study of 112 patients with asymptomatic LBBB and no apparent heart disease followed for an average of 9.5 years, there was a slight increase (not statistically significant) in all-cause mortality when compared with age- and sex-matched controls (relative risk [RR]=1.6, 95% confidence interval [CI], 0.64–3.53).¹ However, patients with LBBB had a statistically significant increase in cardiovascular disease (RR=1.9, 95% CI, 1.00–3.66) and cardiac mortality (RR=5.5, 95% CI, 1.37–26.2) vs controls.¹ Two other cohort studies^{2,3} of incidental LBBB did not separate symptomatic from asymptomatic patients. In these studies also, no statistically significant difference was found for all-cause mortality between patients with LBBB and controls,^{2,3} but there was a significant increase in heart failure among patients with LBBB.²

The altered electrical activation of LBBB has been shown to cause mechanical abnormalities, such as reduction in left ventricular diastolic time, abnormal ventricular septal motion, and reduced left ventricular ejection fraction.⁴ Long-term, these mechanical anomalies may lead to heart failure. A prospective cohort study followed 29 patients

with nonischemic dilated cardiomyopathy, chronic LBBB, and severe heart failure who were treated with resynchronization therapy. At 1-year follow-up, 17% of the patients demonstrated normalization of left ventricular systolic function, defined as ejection fraction >50%.⁵ The amelioration of the electrical disturbance resulted in resolution of the cardiomyopathy, supporting the concept that left ventricular dyssynchrony may lead to a cardiomyopathic process. Because of the possible long-term detrimental effects of electrical dysfunction, some experts advocate that patients with LBBB should be screened periodically for the development of cardiomyopathy.

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What is the best treatment for chronic hiccups?

Evidence-Based Answer

Intravenous chlorpromazine terminates chronic hiccups. (SOR **C**, based on a case series.) Baclofen also appears to terminate hiccups and increase hiccup-free periods. (SOR **C**, based on a small randomized trial and a case series.) Other drug treatments have also been used for the treatment of hiccups, yet little evidence is available to indicate that any approach is superior.

Chlorpromazine is approved by the US Food and Drug Administration for the treatment of intractable hiccups. In a case series of 50 patients (46 men and 4 women) with chronic hiccups, chlorpromazine at doses of 25 to 50 mg IV, repeated in 2 to 4 hours, resulted in immediate relief of hiccups in 81% of patients. Five patients responded in 6 hours; 4 patients had no response.¹ Adverse events included sedation, skin rash, and central nervous system depression. Based on the side-effect profile,

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