

RBBB & LBBB

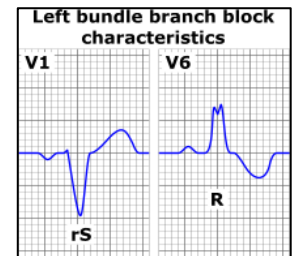
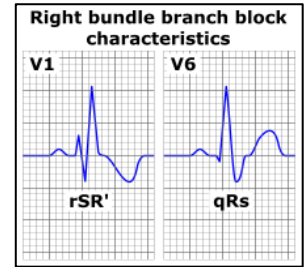
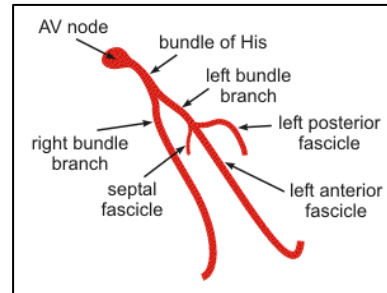
Anesthetic Pearls: Anesthetic Implications of Right & Left Bundle Branch Block

Common Causes:

1. Idiopathic
2. MI
3. Progressive fibrosis of the atrioventricular (AV) conducting system

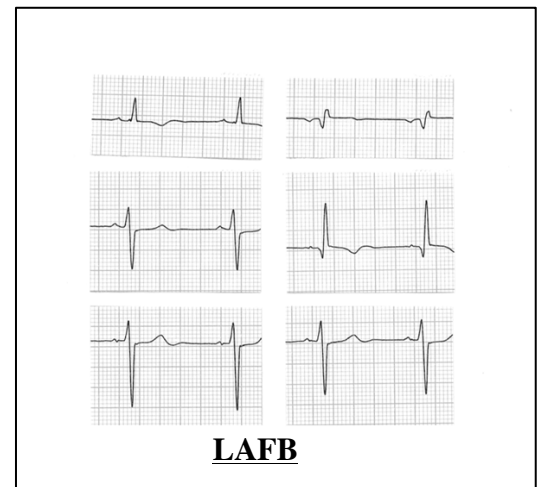
Types:

- Fascicular blocks: left anterior / posterior fascicles (LAFB, LPFB); right bundle branch block (RBBB)
- Bifascicular heart block (BFHB): LBBB, RBBB + LAFB, or RBBB + LPFB



Facts:

- No studies have shown an increased risk of bifascicular heart block progressing to high-degree AV heart block during surgery.
- Anesthetics or adjuvants may slow or enhance instability of escape rhythms or accessory pathways.
- Few patients with normal PR-intervals and LBBB progress to 3rd degree AV heart block.
- Patients with pre-existing bundle branch block or fascicular heart block have a 12% (LBBB) to 40% (RBBB + LAFB/LPFB) risk of progression to 3rd degree AV heart block during acute myocardial ischemia.
- Status of associated cardiovascular disease (coronary, congenital, or other heart disease) must be evaluated.
- If patient has pacemaker, the device should be **interrogated pre-operatively** to decrease incidence of inter-op events, post-op events, or malfunctions.



Recommended Treatment:

- A. **Chronotropes:** (Atropine, Ephedrine, Isoproterenol) to speed conduction or increase escape rate.
- B. **Temporary or permanent pacing** to treat symptomatic or detrimental bradycardia.

Monitoring:

1. ECG (continuous monitor vs. strip recorder)
2. +/- Arterial line (arterial pulse waveform is useful if patient has permanent or temporary pacer)
3. +/- PA catheter (insertion of PA catheter with LBBB may cause transit RBBB thereby leading to complete heart block)

