ECG Quiz # 3

Which permanent pacemaker would be ideal?



- 36 Year old male.
- 3 episodes of syncope in 1year.
- ECG: Complete Heart Block.
- Echo: Structurally normal heart with good biventricular function.

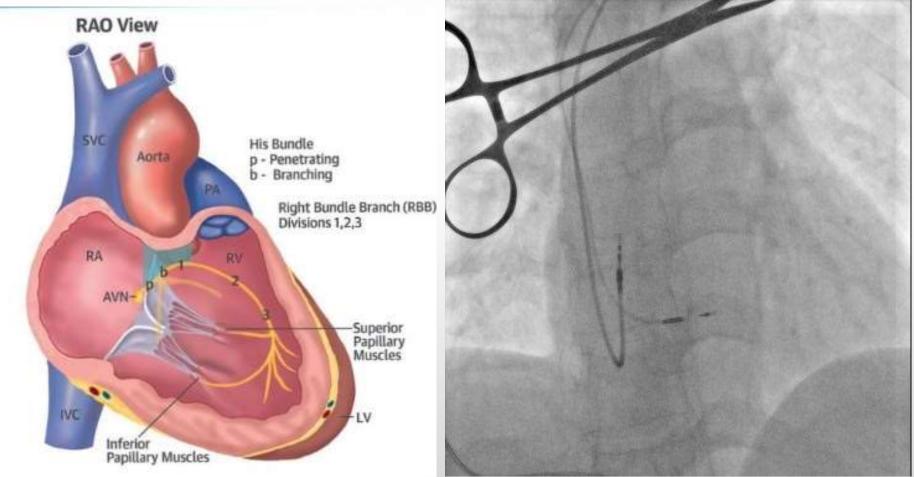
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Disadvantages of Conventional Right Ventricular (RV) Pacing.

- <u>RV apical pacing</u> changes the ventricular activation sequence. This limits LV apical motion, resulting in LV systolic dys-synchrony and electromechanical delay.
- Long-term RV apical pacing may lead to LV systolic and diastolic dysfunction, consequently increase the rate of newonset heart failure, incidence of atrial fibrillation and overall mortality.
- <u>RV outflow tract pacing</u>, even when achieved from the septum, has not been shown to be superior in randomized studies

His Bundle Pacing Anatomy of conduction system





Note the Narrow QRS achieved with His Bundle Pacing!

- His Pacing is more physiological stimulation compared to RV Apical pacing.
- It reduces incidence of LV dysfunction and atrial fibrillation compared to conventional pacing

 It can also done in situations where CRT has limited role such as non LBBB and narrow QRS ECG.

