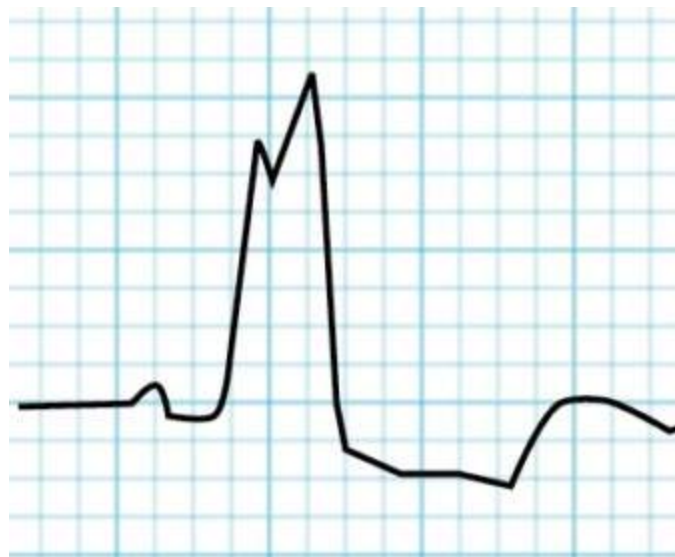


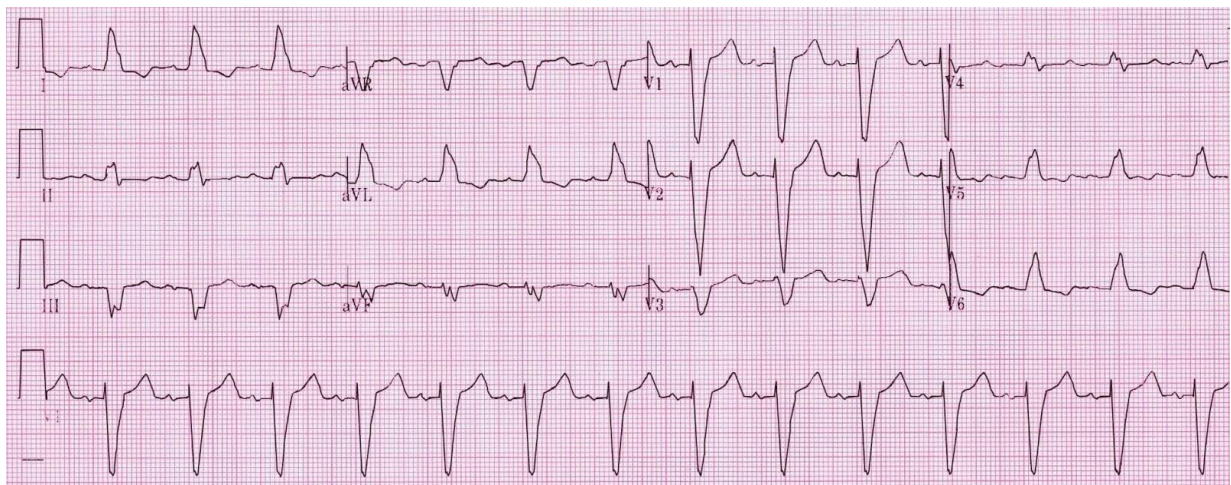
Left Bundle Branch Block

What is the position of Cardiac Resynchronization Therapy?



Left Bundle branch Block

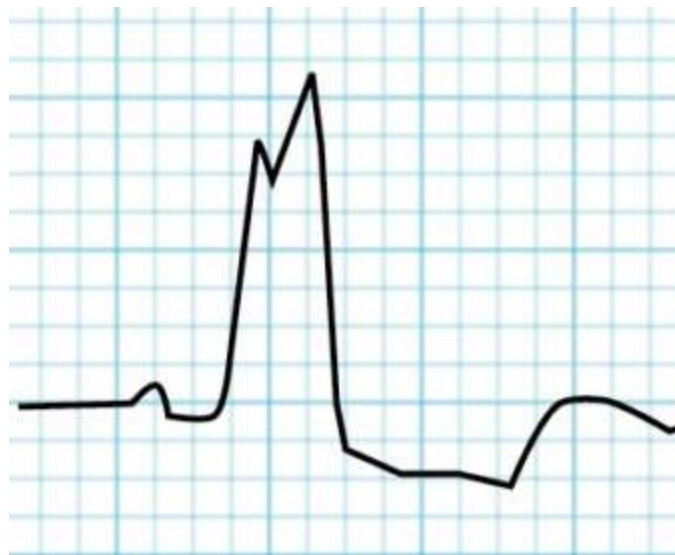
It Was first recorded electrocardiographically at 1914 (Strauss D.G.;2011)



www.blogspot.co

There are some Electrocardiographic criteria of Left Bundle Branch Block

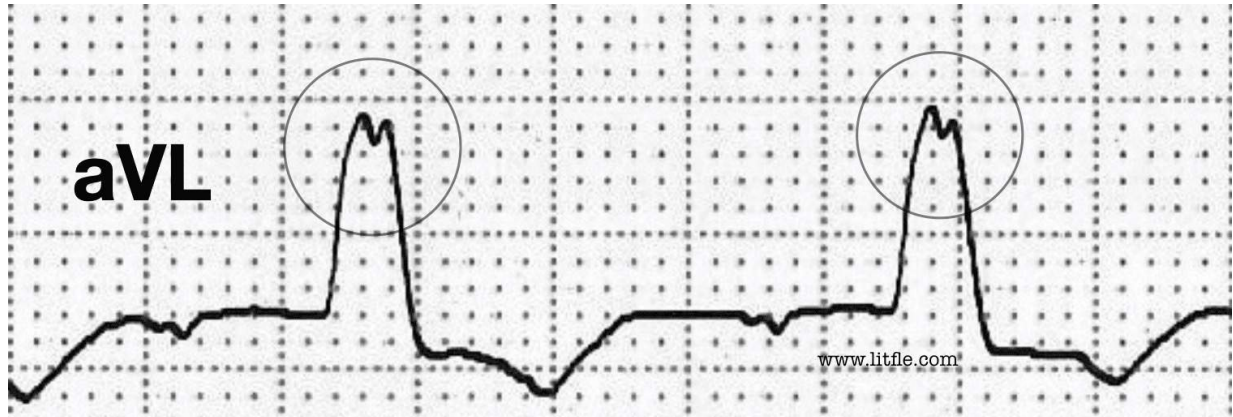
QRS duration \geq 120 ms



Width of QRS has direct relation with left ventricular dyssynchrony.

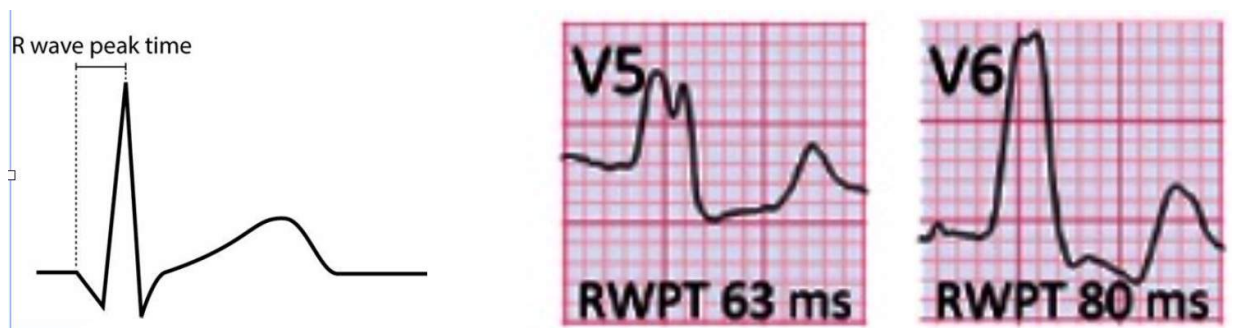
(Shaik SA, et al. Indian Heart J. 2021 Sep-

Oct;73(5):664-666)



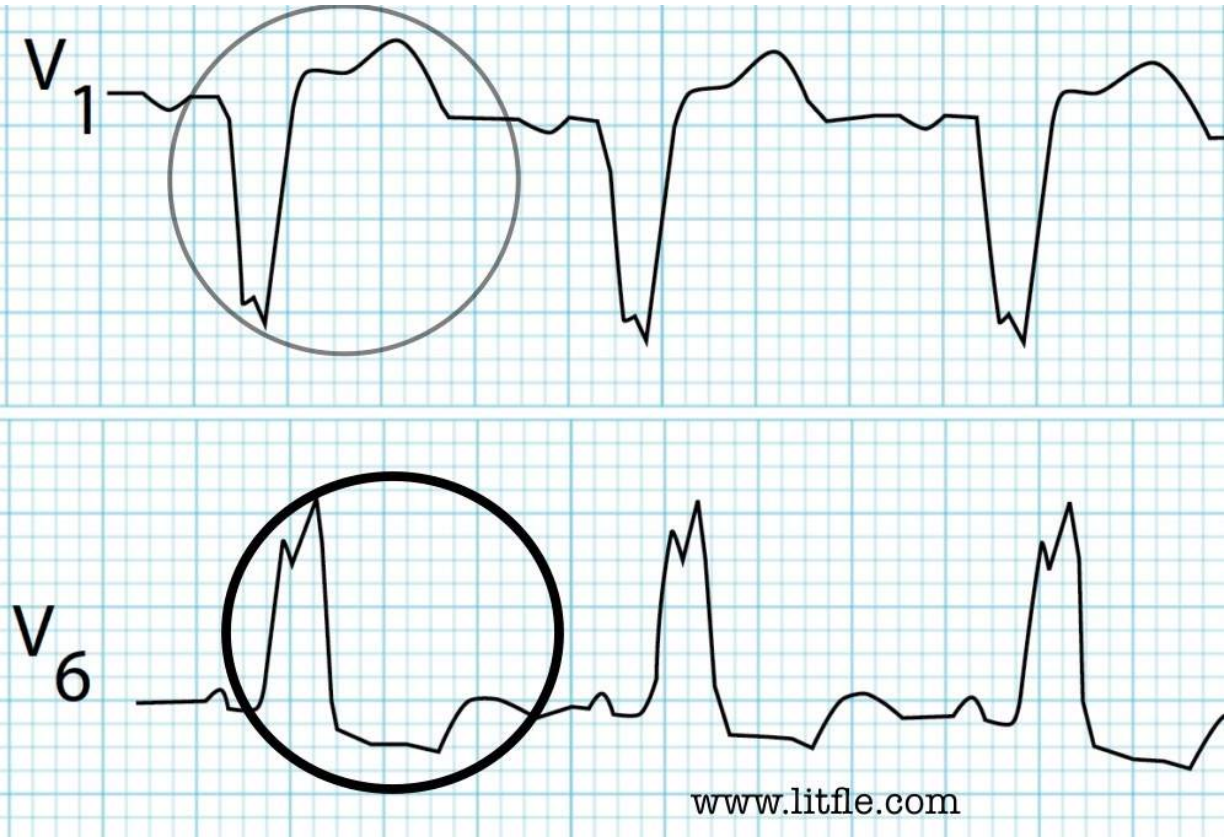
Notching/slurring in the middle third of the QRS in ≥ 2 leads: V1, V2, V5, V6, I and I and aVL

(Calle S, et al. Neth Heart J. 2022 Nov;30(11):495-498.)

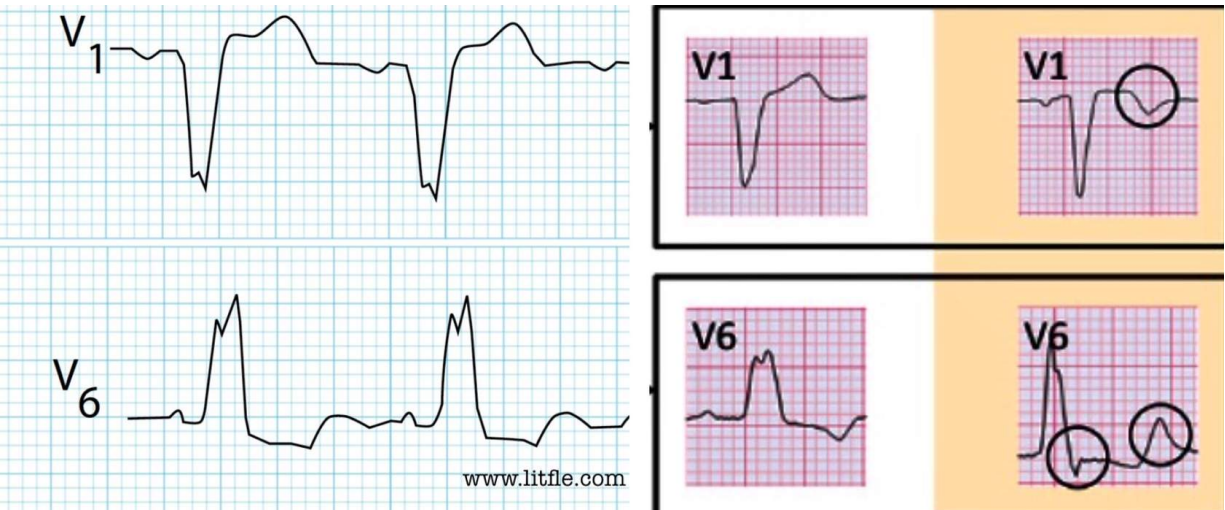


R-Wave Peak Time > 60 ms in V5-6 (Calle S, et al. Neth

Heart J. 2022 Nov;30(11):495-498.)



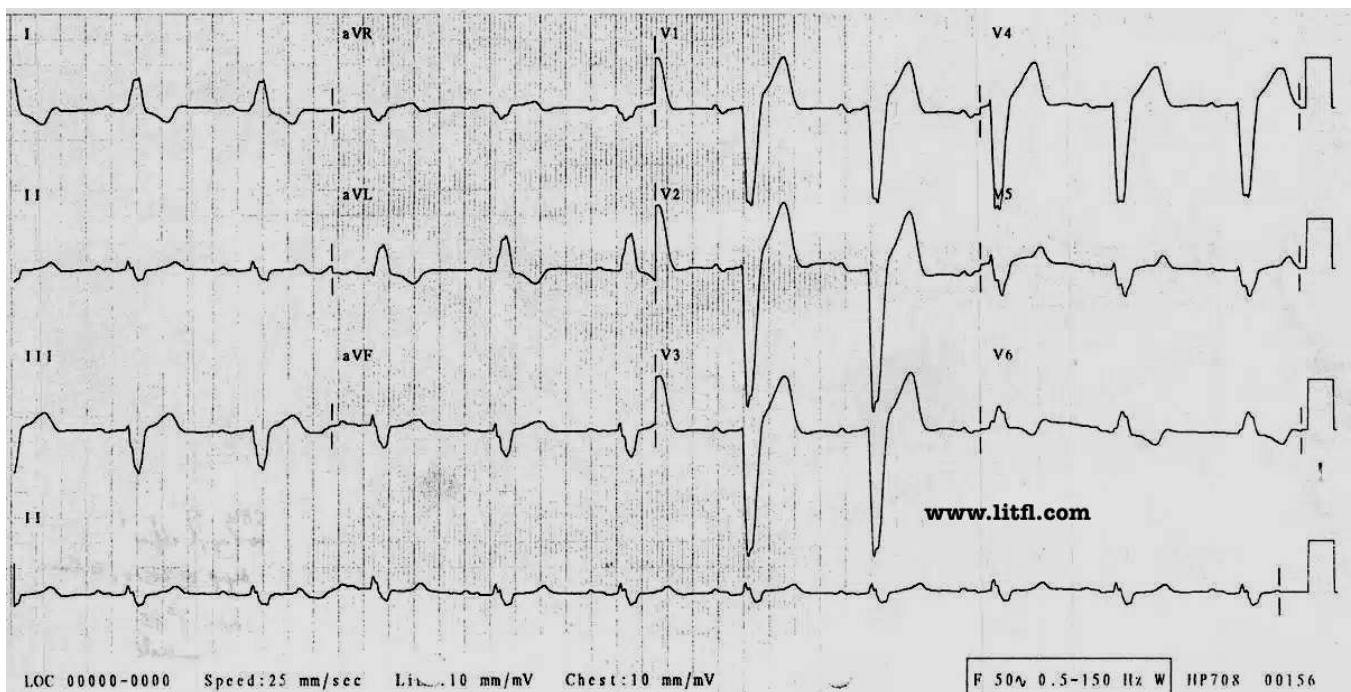
- **Generally , the ST segment is slightly opposed to the QRS polarity.** (Upadhyay GA, et al. Circulation. 2019, 139(16):1876-1888)

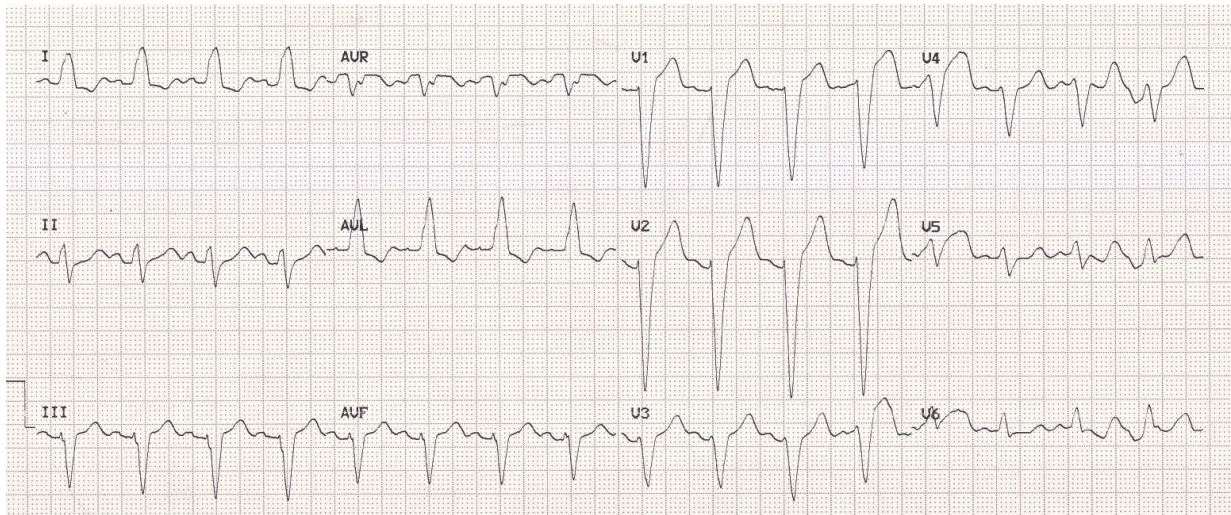


- **QS or rS in V1 with slightly elevated and positive asymmetric T wave. When the QRS is less than 140 ms, The T wave in V6 may be positive** (Calle S, et al. Neth Heart J. 2022 Nov;30(11):495–498.)

Exclusively R wave in I and aVL often with a negative asymmetrical T wave, slight ST depression, and usually QS in aVR with positive T wave (Tan NY, et al. Circ Arrhythm

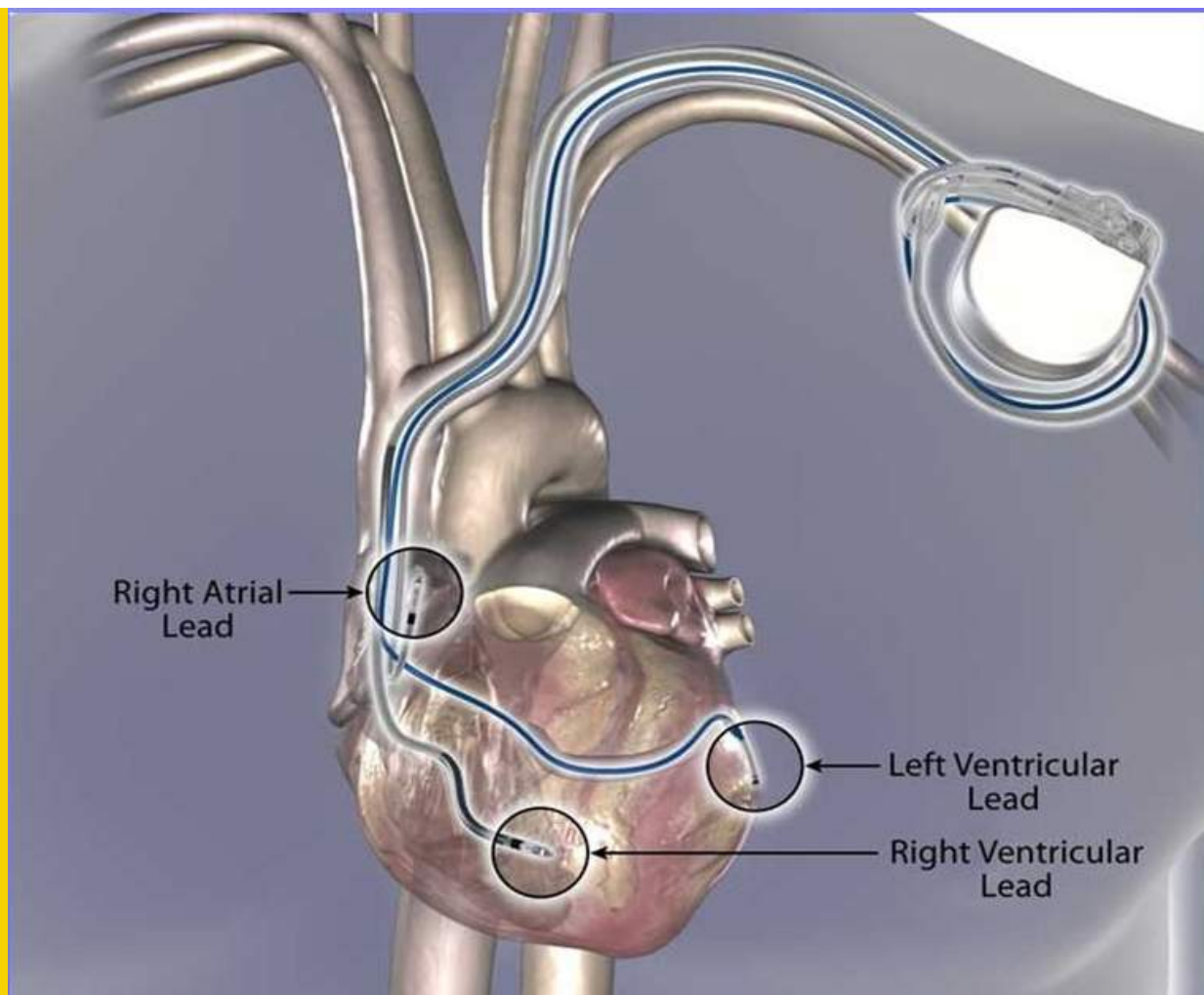
Electrophysiol. 2020,13(4):e008239)





- **The QRS axis is variable Upadhyay GA, et al. Circulation.** (Calle S, et al. Neth Heart J. 2022 Nov;30(11):495-498.)





Guideline of recommendation for CRT implantation ESC 2021

(with sinus rhythm)

LBBB+ QRS \geq 150 ms: Class I

LBBB + QRS 130–149: Class IIa

Non-LBBB + QRS \geq 150 ms: Class IIa

Non-LBBB+ QRS 130-149: Class IIb

Thanks