

Name: JTR

Sex: Male

Age: 54 yo.

Race: Caucasian

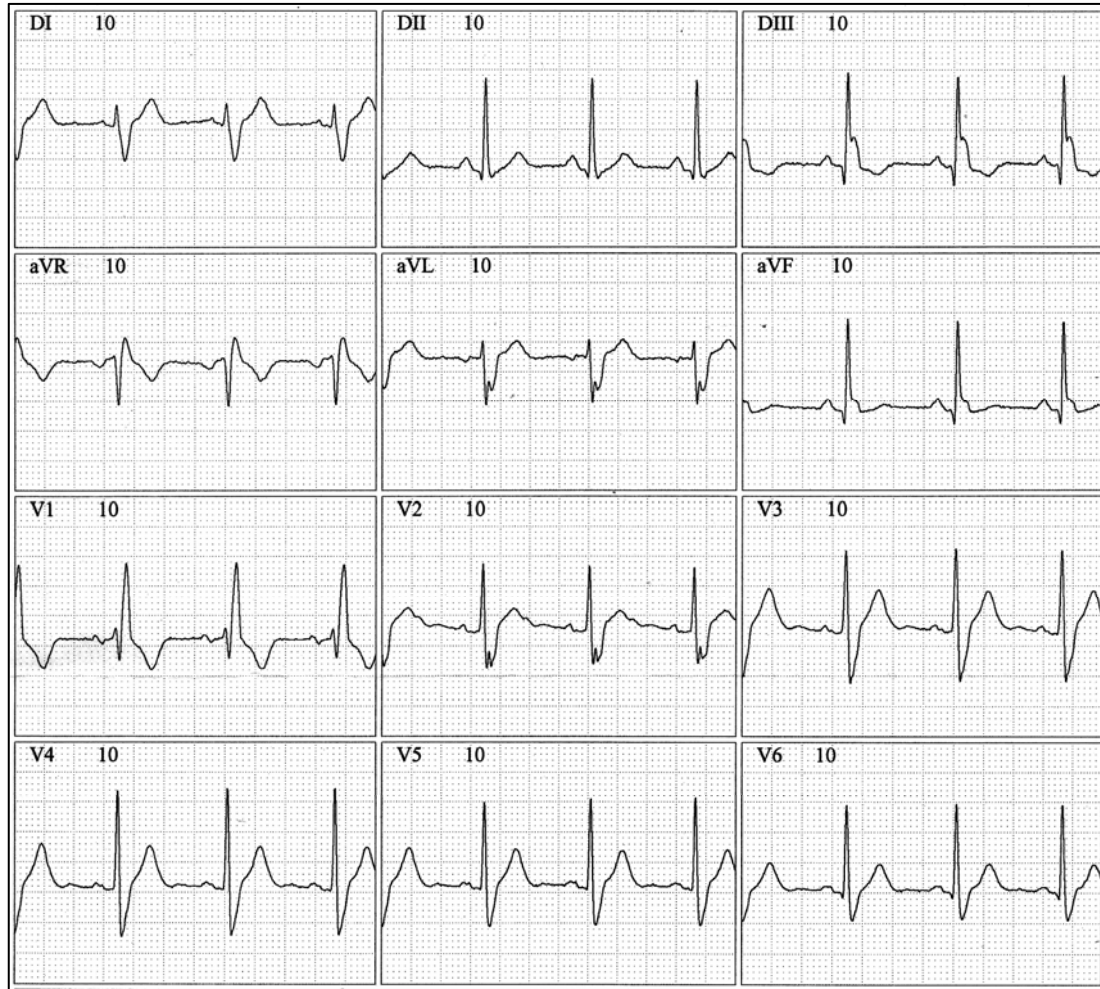
Weight: 72 Kg

Height: 1,72 m

Biotype: Normoline

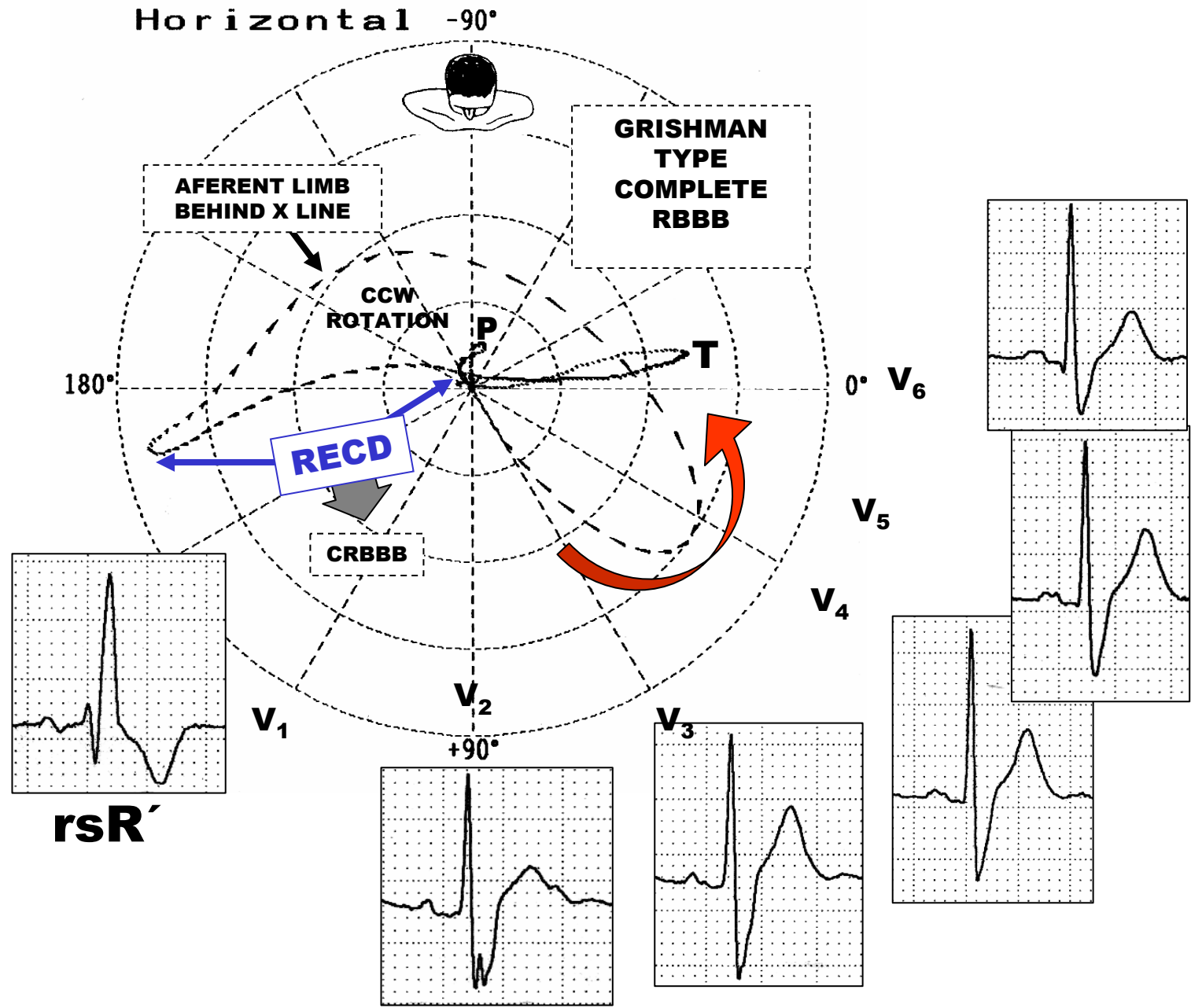
Date: 12/02/2008

Medication: Sinvastatin 20mg/day.

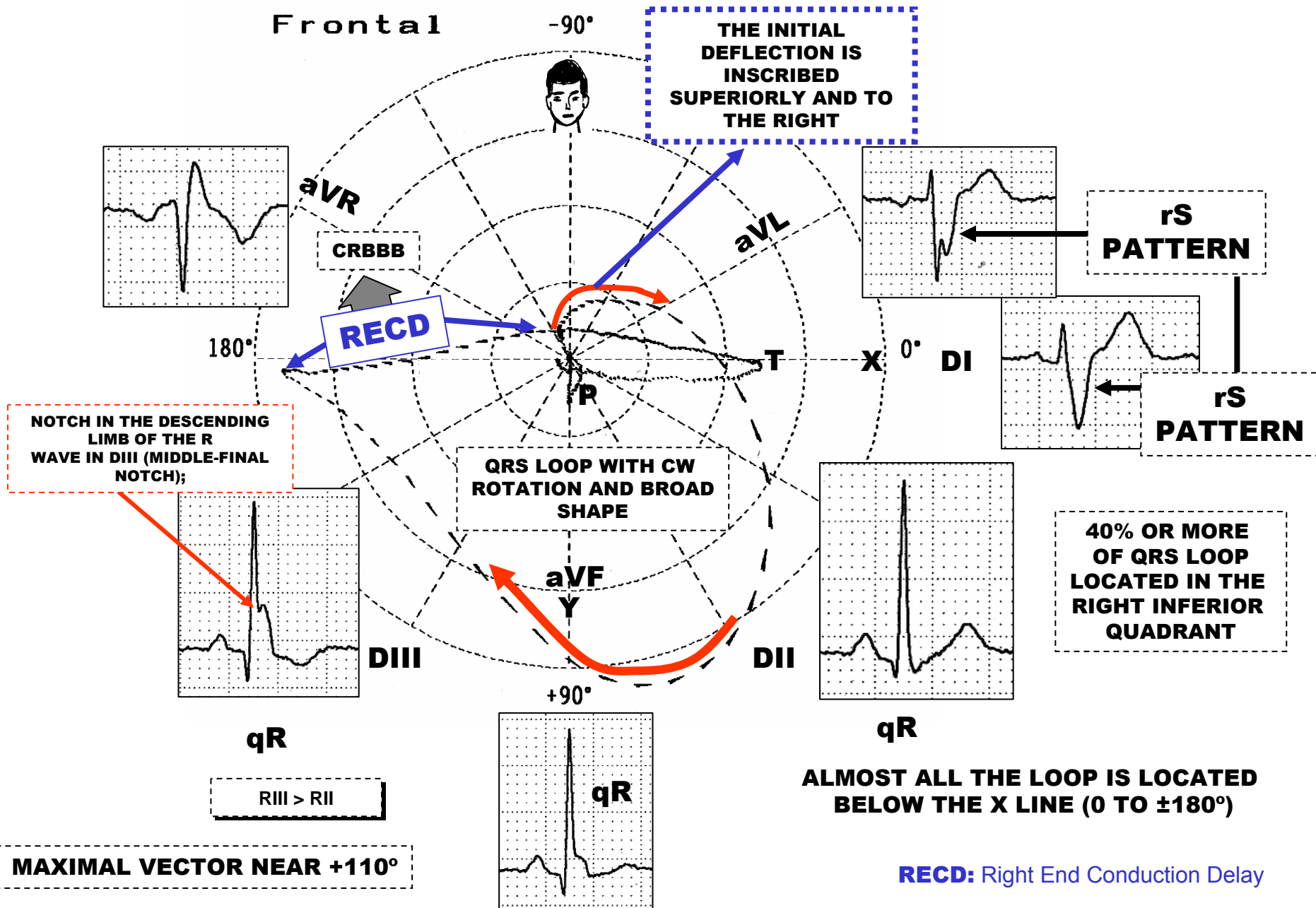


ECG diagnosis: Complete RBBB + LPFB.

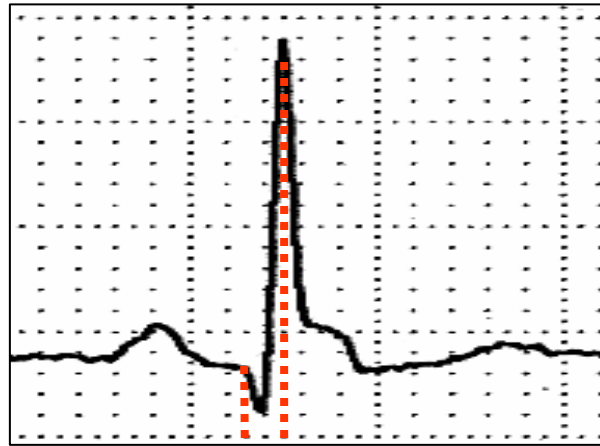
ECG/VCG HORIZONTAL PLANE CORRELATION



ECG/VCG FRONTAL PLANE CORRELATION



The intrinsicoid deflection (ID**)
of aVF is increased: > 35 ms.
In LPFB ID \geq 35ms**



aVF

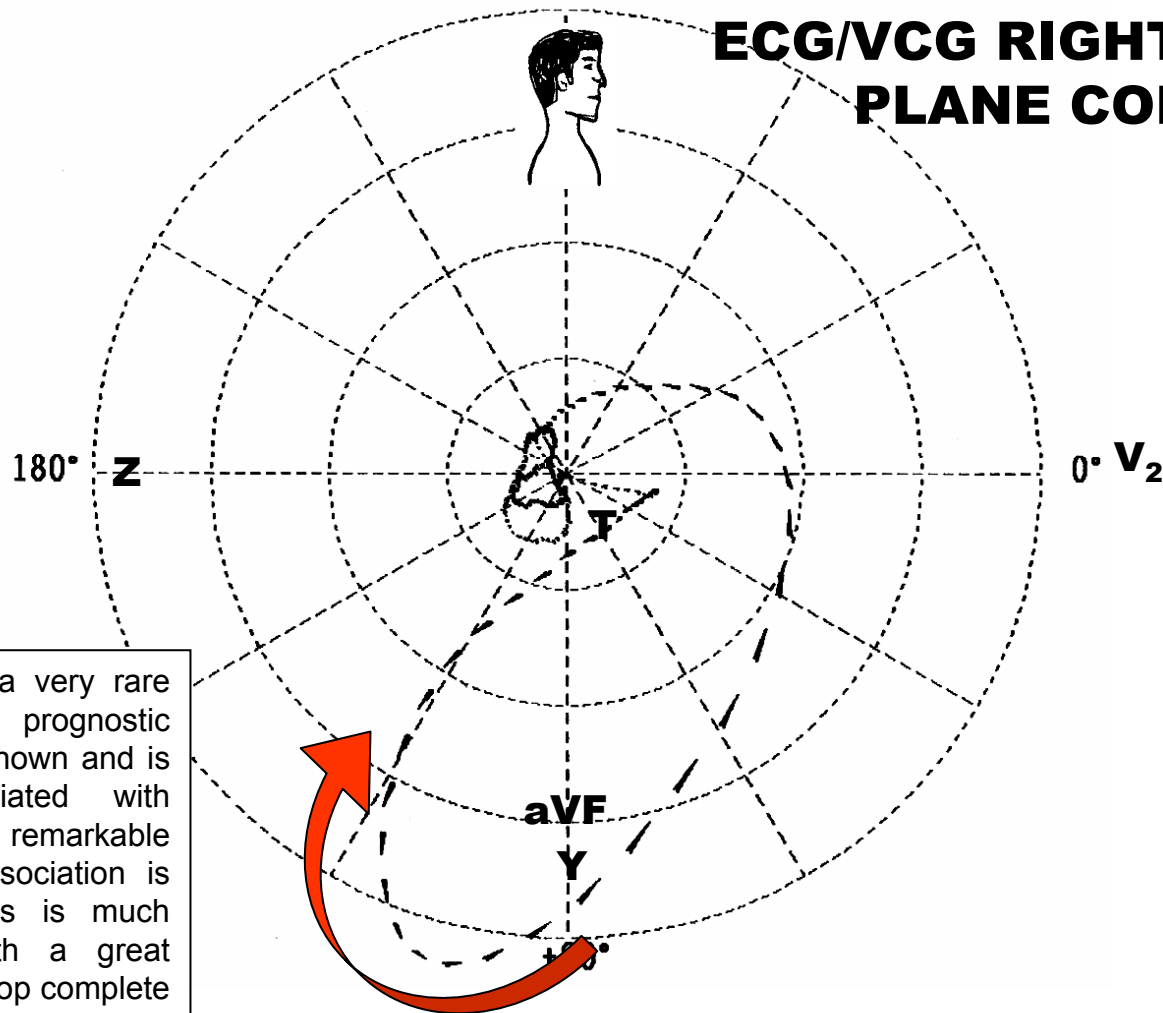
The diagnosis of LPFB based on clinical ECG and VCG tracings alone is possible when ECG and VCG allow to recognize asynchronous LV activation. The delayed inscription time of the intrinsicoid deflection in aVF (or V6) in absolute and relative to aVL permits the diagnosis if intrinsicoid deflection in aVL exceeds 35ms.

Rusconi L, Nava A, Sermasi S, Antonioli GE. The left posterior fascicular block: is the diagnosis possible only by ECG? G Ital Cardiol. 1980;10:1129-1134.

Sagittal

-90°

ECG/VCG RIGHT SAGITTAL PLANE CORRELATION



Isolated LPFB is a very rare finding; its prognostic significance is unknown and is commonly associated with RBBB. The most remarkable feature of this association is that the prognosis is much more serious with a great propensity to develop complete atrioventricular block and Adams-Stoke



ETIOLOGY OF LPFB¹

- Coronary artery disease: generally reflects severe three-vessel CAD, requiring invasive investigation².
- Hypertension
- Cardiomyopathies
- Lev disease
- Lenègre disease.
- Aortic heart disease: massive calcification and aortic insufficiency:
- Acquired Ventricular Septal Defect secondary to inferior wall MI, complicated by rupture of the inferior septum ³.
- Congenital heart cardiopathies.
- Tumors: in the posterior and superior aspect of the interventricular septum where the posterior fascicle of the left bundle is located⁴.

- 1) Elizari MV, Acunzo RS, Ferreiro M. Hemiblocks revisited. *Circulation*. 2007;115:1154-63.
- 2) Godat FJ, Gertsch M. Isolated left posterior fascicular block: a reliable marker for inferior myocardial infarction and associated severe coronary artery disease. *Clin Cardiol*. 1993;16:220-226.
- 3) Rokey R, Chahine RA. Isolated left posterior fascicular block associated with acquired ventricular septal defect. *Clin Cardiol*. 1984;7:364-9.
- 4) Cola H, Hoffman R, Borrega NG, Lazzar i JO. Left posterior hemiblock related to an interventricular septum tumour. First case in the literature. *Eur Heart J*. 1992;13:574-5.

LSFB

- Isolated left posterior fascicular block $\approx 5\%$ of cases (rare condition).
- Associated with RBBB (85%)
- Associated with LBBB (very rare and intermittent)¹⁻²
- Associated with MI³.

- 1) Cheng TO. Intermittent right axis deviation in the presence of complete left bundle branch block. Int J Cardiol. 2006;113:406-7.
- 2) Childers R, et al. Left bundle branch block and right axis deviation: a report of 36 cases. J Electrocardiol. 2000;33 Suppl:93-102.
- 3) Godat FJ, Gertsch M. Isolated left posterior fascicular block: a reliable marker for inferior myocardial infarction and associated severe coronary artery disease. Clin Cardiol. 1993;16:220-226.

FINAL DIAGNOSIS

- Complete RBBB.
- Left Posterior Fascicular Block.