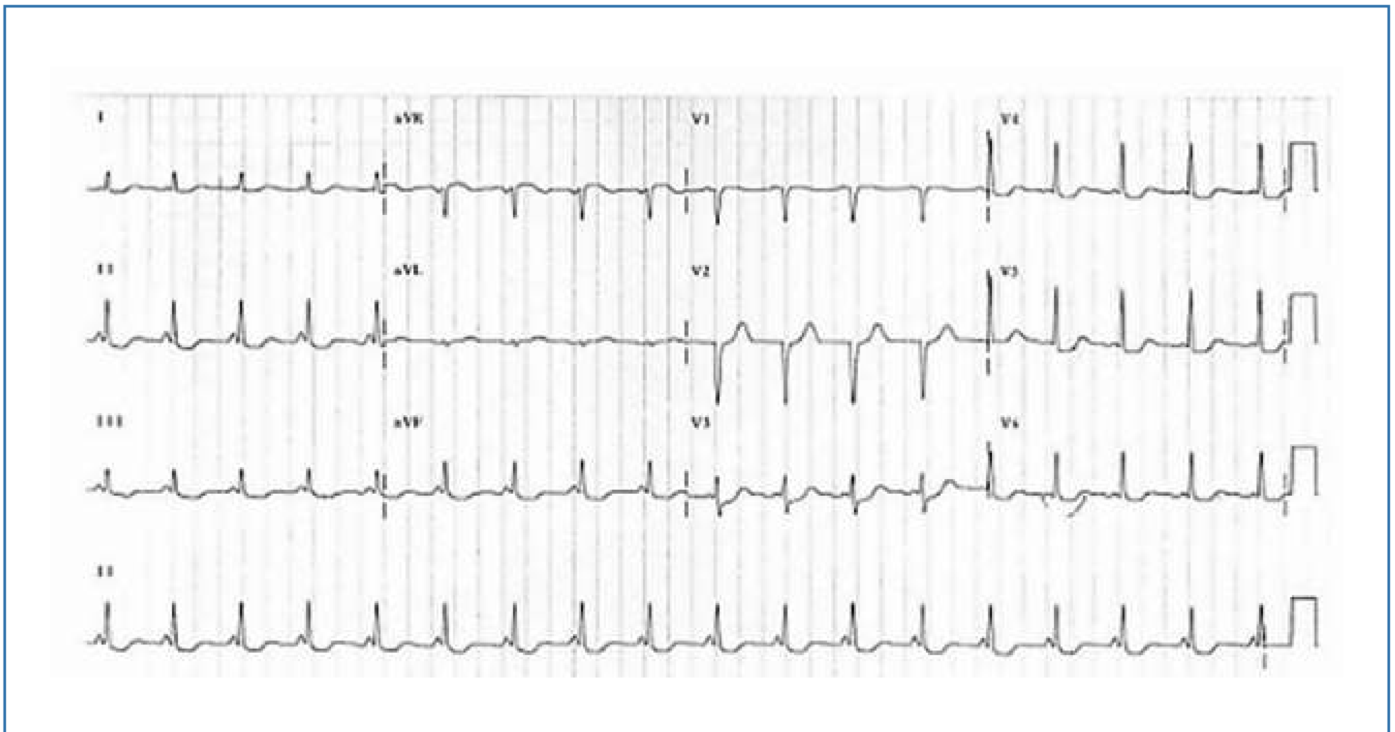
MEDIBEATS
The Medical Bulletin

ECG Excursions

This is the ECG of 60-year-old patient with rest chest pain. Previous ECGs are not available.

1. What are the ECG findings?
2. What are practical implications?



ECG FINDINGS:

The main finding in this ECG is short PR with no delta wave or wide QRS. In addition there is anterior ST depression and avR ST elevation. The anterior ST changes and avR ST elevation is suggestive of Left main coronary artery critical occlusion.

THE CLUE:

In the presence of short PR, with upright P in LII, L III, avF with no delta wave, we can suspect James Pathway pre excitation which is by passing the AV node and then conducting through normal pathway, hence the narrow QRS. But only in the presence of h/o palpitation and documented episode of tachycardia it is called “Lown Ganong Levine syndrome”(LGL syndrome). So this ECG you cannot interpret as LGL syndrome without history. The name given to this type of ECG is Coronary Nodal Rhythm. (CNR). The following figure explains the approach to short PR.

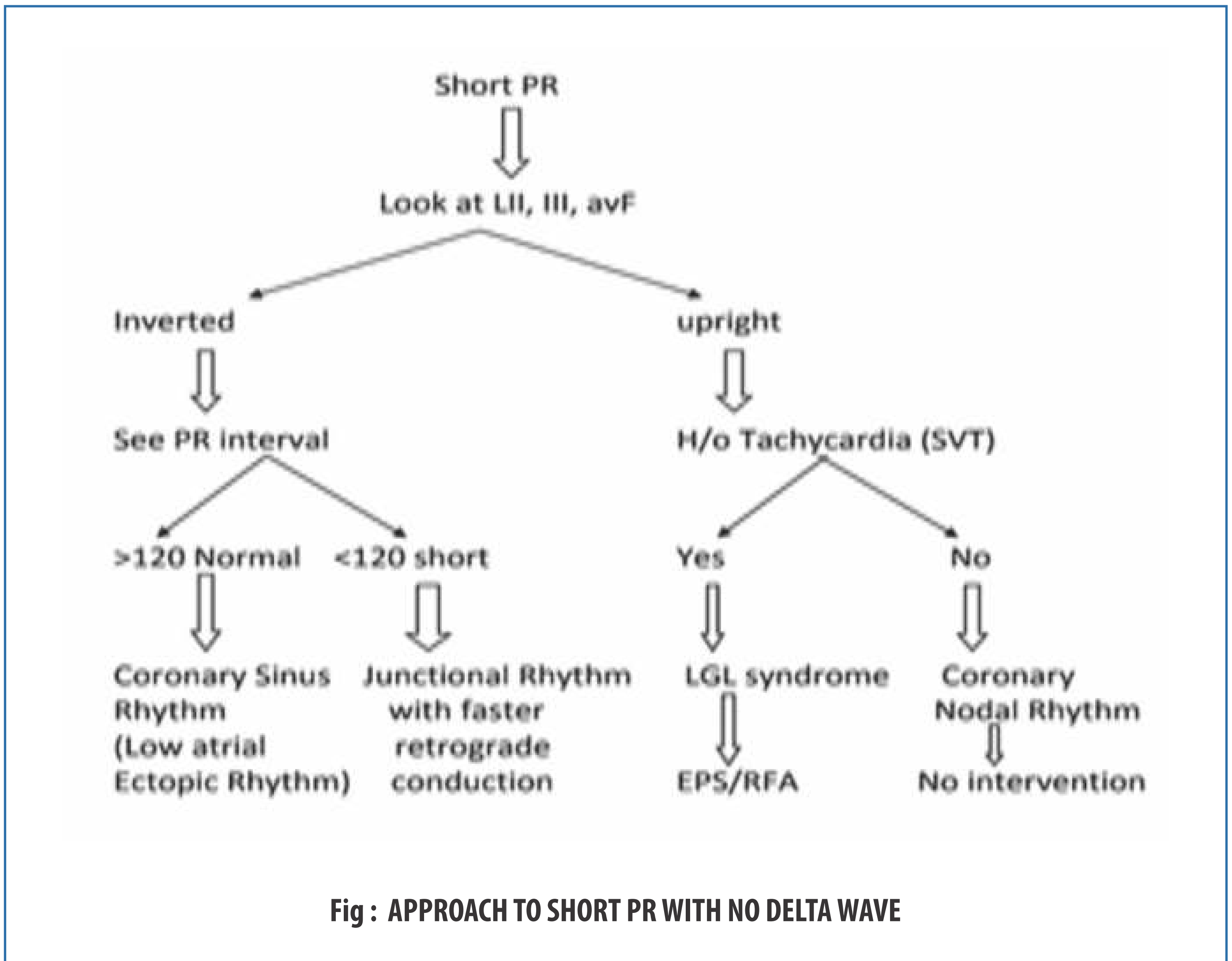


Fig : APPROACH TO SHORT PR WITH NO DELTA WAVE

PRACTICAL IMPLICATIONS:

The immediate management in this ECG is for ST depression and avR elevation by doing immediate coronary angiogram and suitable revascularisation. The short PR interval does not need any intervention. If the patient develops tachycardia, then EP studies and Radio Frequency ablation may be planned.

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