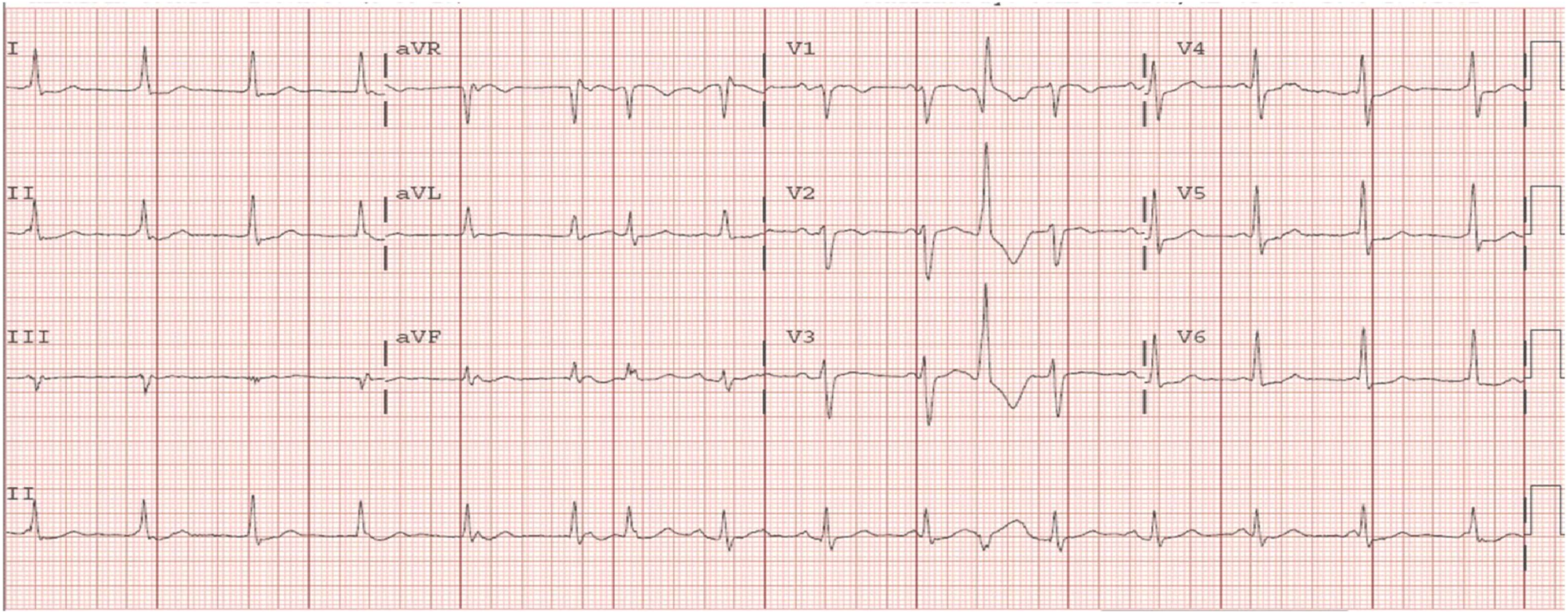
• AV dissociation



Example of "isorhythmic" AV dissociation: This ECG starts and ends with junctional rhythm 78 bpm that's competing with sinus rhythm. Isorhythmic AV dissociation occurs when atrial and ventricular rhythms fire at similar rates but are independent of each other as evidenced by slightly varying PR intervals.

- Atrial and ventricular rhythms are independent of each other, even if only for a portion of the tracing
- Ventricular rate is usually ≥ atrial rate

AV dissociation is a secondary phenomenon resulting from some other disturbance of cardiac rhythm. AV dissociation may involve:

- A ventricular rate that is faster than the normal atrial rate because of acceleration of a subsidiary pacemaker (e.g., junctional or VT,
- Myocardial ischemia, digitalis toxicity, post-operative state, or an electronic ventricular pacemaker)
- A ventricular rate that is faster than the normal atrial rate because of slowing of the atrial rate (e.g., sinus bradycardia, sinus arrest, sinoatrial exit block, high vagal tone, post-cardioversion, β-blockers) below the intrinsic rate of a subsidiary AV junctional or ventricular
  pacemaker (including an electronic ventricular pacemaker).
- A ventricular rate that is slower than the atrial rate because of AV block (e.g., Mobitz I or Mobitz II 2° AV block).

AV dissociation is a more general term used when atrial activity does not result in 1:1 ventricular activation, even if only for a portion of the tracing, and the ventricular rate is usually faster than the atrial rate. Complete heart block (3° AV block) is characterized by the presence of independent atrial and ventricular activity with an atrial rate that is faster than the ventricular rate. AV dissociation is commonly seen during VT. When diagnosing AV dissociation, the atrial and the ventricular rhythms (junctional, ventricular, paced, etc.) should also be described.