

ANSWER TO QUIZ – ELECTROCARDIOGRAPHY

Answer to ECG quiz on page 393

Correct answers: D and E

A. **Isorhythmic dissociation** is due to a competition between two different rhythms which rates are very close, usually a

junctional rhythm in competition with slow sinus rhythm. This is not currently the case here. An example of isorhythmic dissociation is provided below (Fig. 1).

LARM HISTORY *BRADY* 19-DEC-2009 06:52:56 HR 24 @ 25 MM/S



Figure 1. Isorhythmic dissociation

B. Complete atrioventricular block with Hissian extrasystoles - the presence of retrograde P waves excludes the presence of underlying atrial fibrillation with complete atrioventricular block

C. Sinus bradycardia with atrial bigeminy - a sinus P wave should then be visible before each QRS complex, which is not the case here. An example is provided below (Fig. 2).

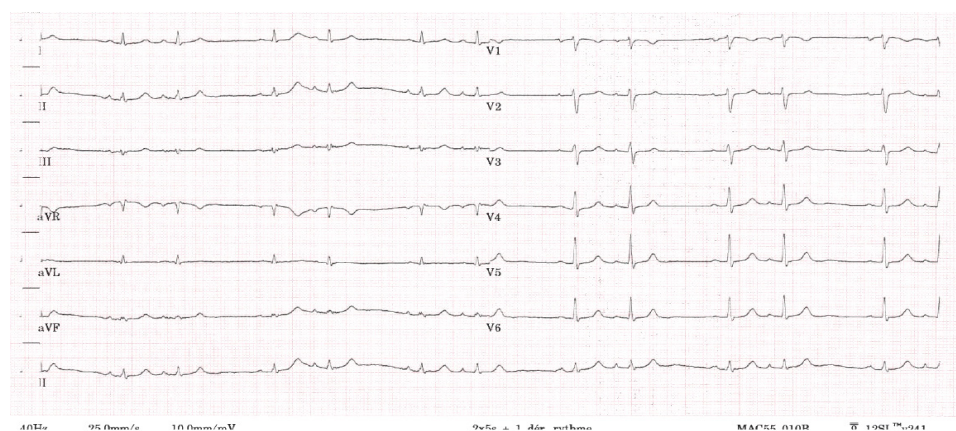


Figure 2. Sinus bradycardia with atrial bigeminy

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D. Junctional escape-capture bigeminy. This is visible in ECG strip below (Fig. 3), the sequence consisting in a group beating of a junctional beat followed by a conducted sinus

beat. A normal (anterograde) sinus P wave (visible here in V1) is sandwiched between 2 QRS complexes an arrangement causing group beating with recurring couplets.

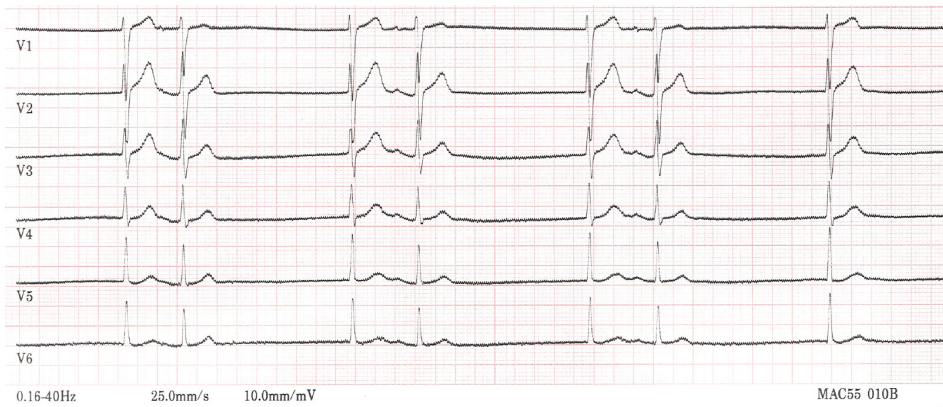


Figure 3. Junctional escape-capture bigeminy

E. Escape-echo bigeminy. This is a variant of the preceding (Fig. 4). The arrangement is different, where a junctional beat gives rise to a retrograde P wave (best seen in the inferior leads),

which is then conducted back to the ventricles, producing a hitherto combination.

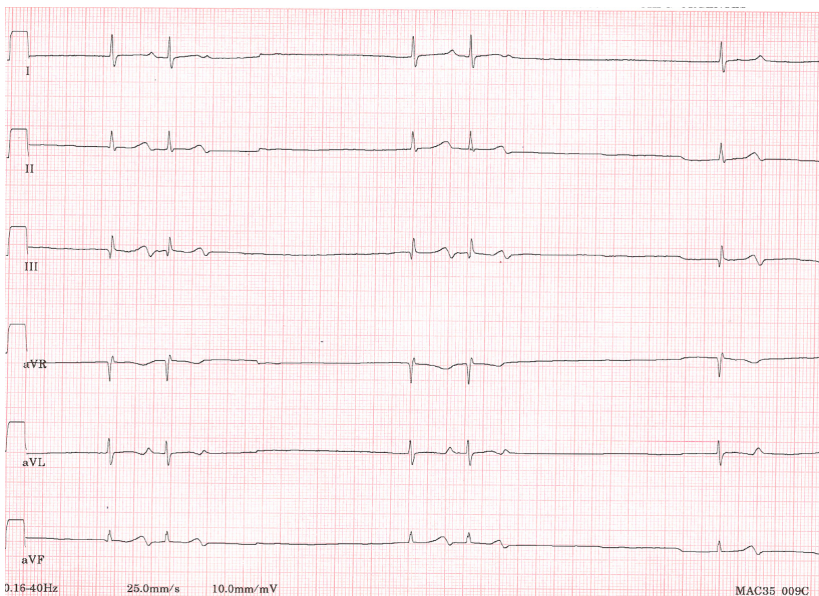


Figure 4. Escape-echo bigeminy

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