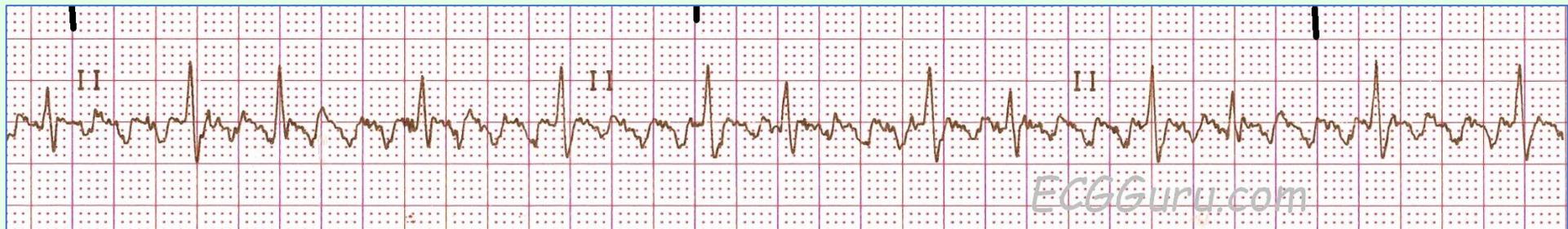




ECG Rhythms Quiz



Level 2 - Experienced

Key to abbreviations in answers:

***AR** = atrial rate

***VR** = ventricular rate

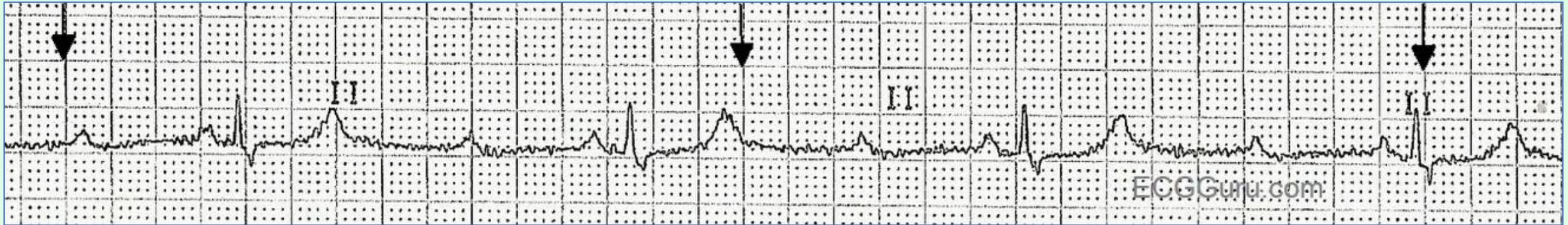
***PRI** = PR interval

***Intervals** are expressed in milliseconds (ms)

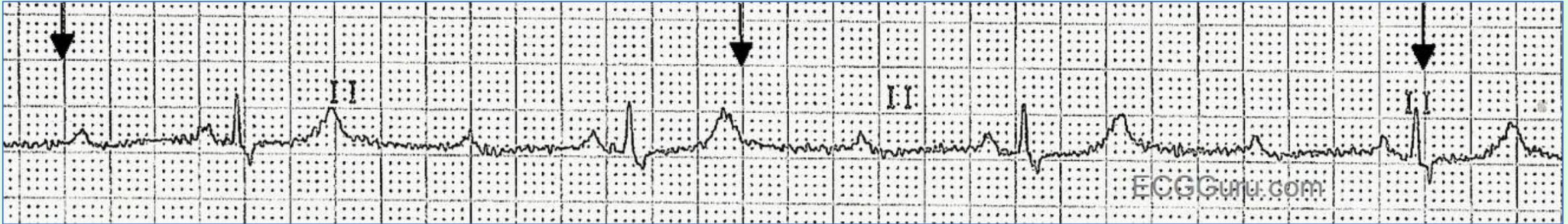
***Six-second rate** is the number of complexes seen on a six-second strip multiplied by four. Used for irregular rhythms.

For questions or comments, contact us at Dawn.ECGGuru@gmail.com

1.



1.



Sinus tach with second-degree AVB Type II 3:1 conduction.

Atrial rate 105. VR 35. PRI 176 ms. QRS width 98 ms

2.



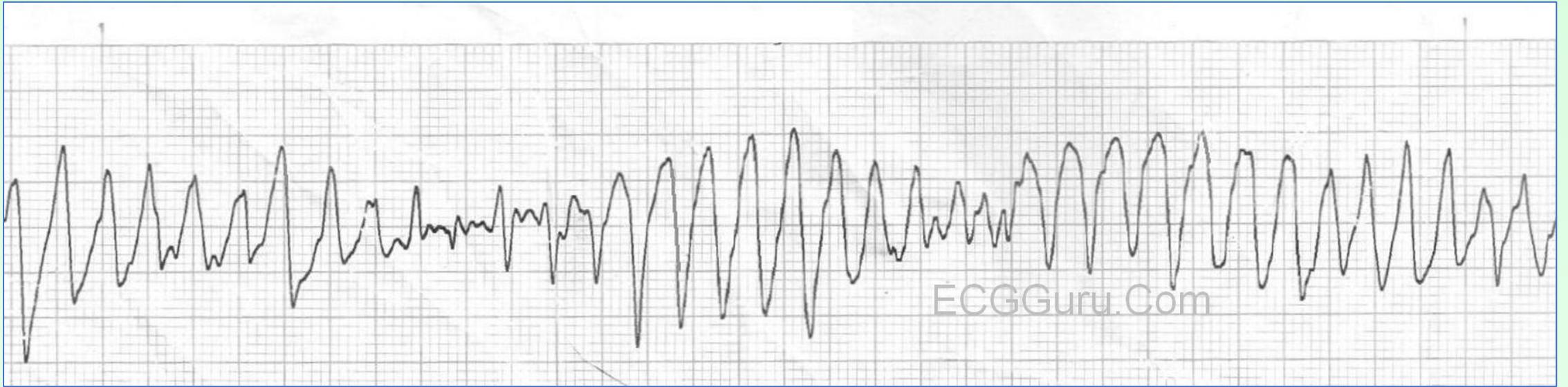
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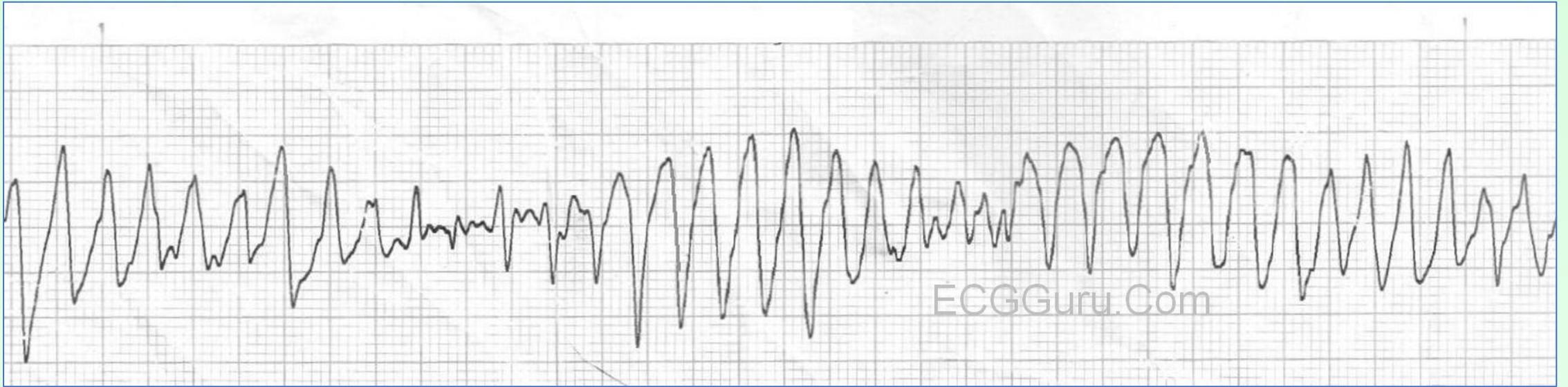
Atrial paced rhythm.

AR 65 paced. VR 65 conducted. PRI 220 ms. QRS width 98 ms. ST depression and T wave inversion. 12-lead ECG indicated.

3.



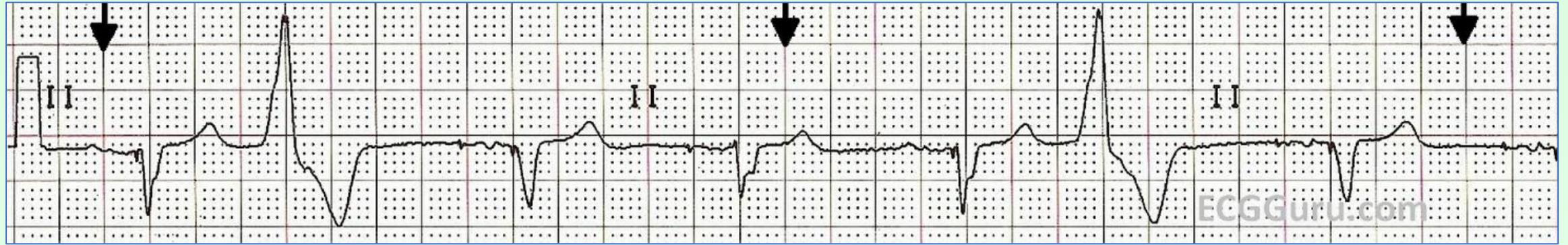
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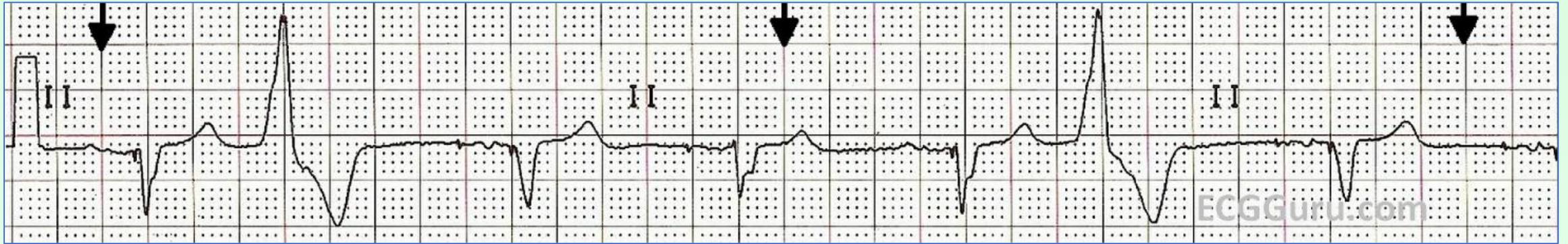
Polymorphic ventricular tachycardia.

If patient known to have long QTc prior to this rhythm, the term is
Torsades de Pointes.

4.



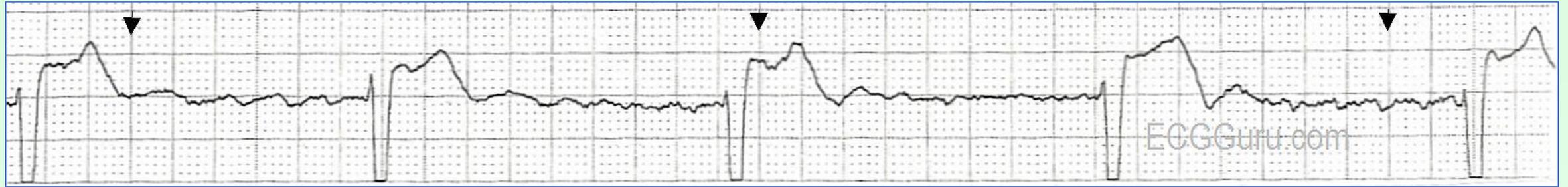
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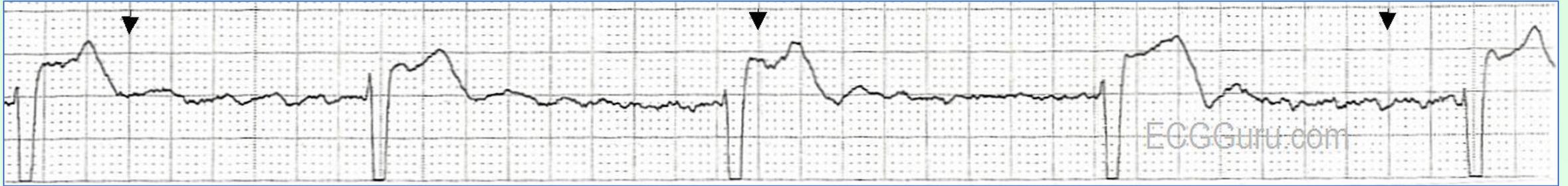
Bi-ventricular pacing with two PVCs.

Paced rhythm is 60 with tiny AV sequential pacer spikes. PRI 227 ms. Occasional intrinsic P wave with no pacer spike. QRS width: paced beats 110 ms, PVCs 164 ms.

5.



5.



Atrial fibrillation with complete heart block and ventricular escape rhythm.

VR 37. QRS width 140 ms. Pt. had prior hx of afib.

6.



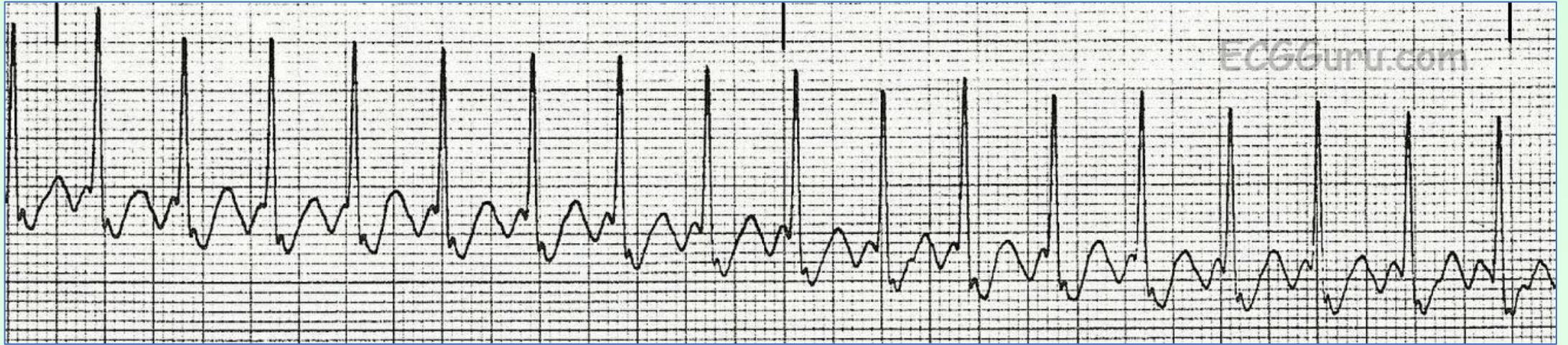
6.



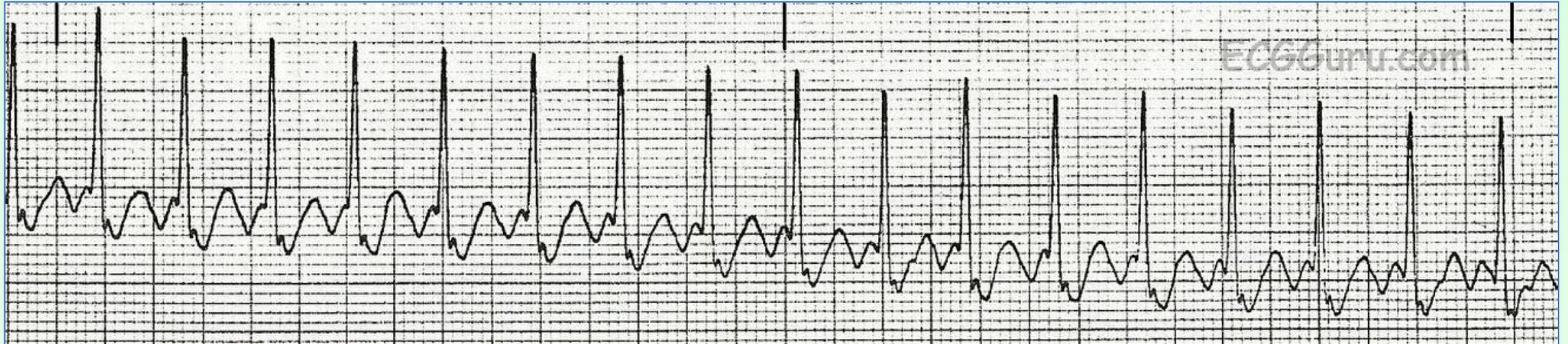
Ventricular tachycardia interrupted by burst of overdrive pacing from AICD. To ventricular paced rhythm.

WCT: VR 150. QRS width 223 ms. Overdrive pacing: VR 212. QRS width 223 ms. Paced rhythm: VR 75 bpm. QRS width: 200 ms.

7.



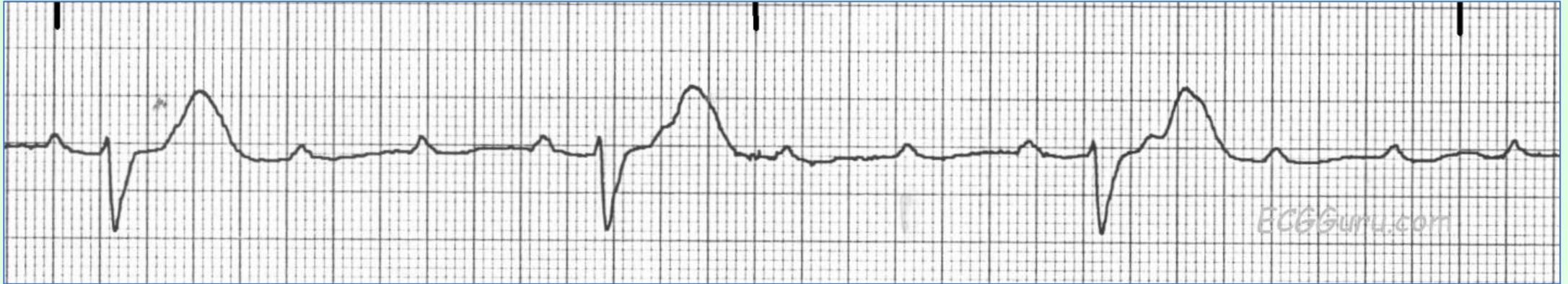
7.



Atrial flutter with 2:1 conduction.

AR 340. VR 170. QRS width 70 ms.

8.



8.



Sinus tachycardia with third-degree AV block and ventricular escape rhythm.

AR 118. VR 29. QRS width 132 ms. There are no PRIs, the P and escape QRS are gradually moving further apart. A longer strip would make this more obvious.

9.



9.



**Sinus tachycardia with second-degree AV block and
2:1 conduction.**

AR 110 . VR 55. PRI 167 ms. QRS width 150 ms.
ST elevation, 12-Lead ECG required.

10.



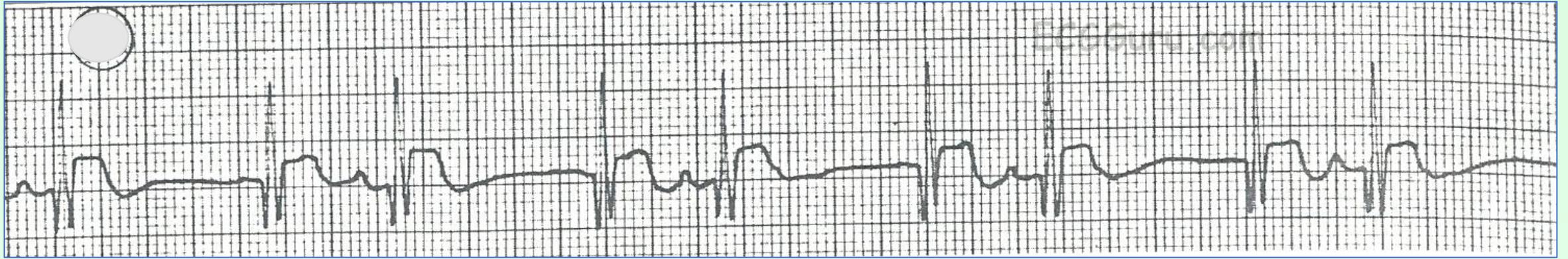
10.



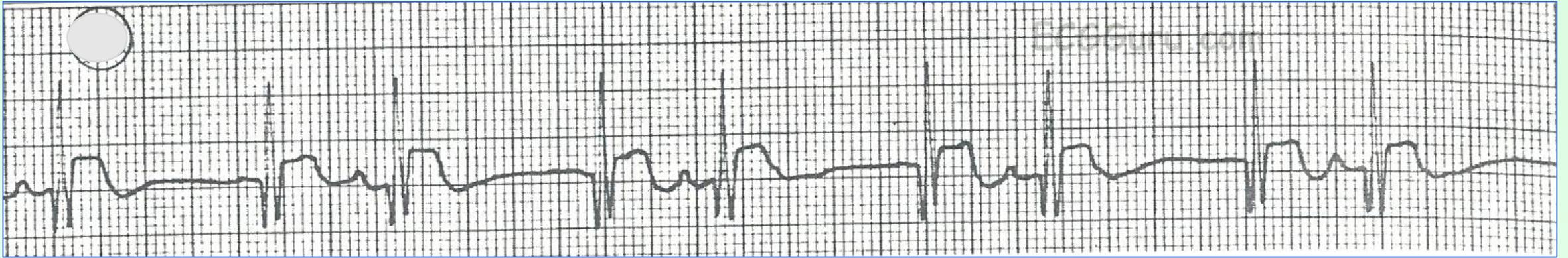
Sinus tachycardia with second-degree AV block, Type I.

Approx 6:5 conduction. AR 133. VR 110. PRI variable. Beat 11 is probably an escape beat.

11.



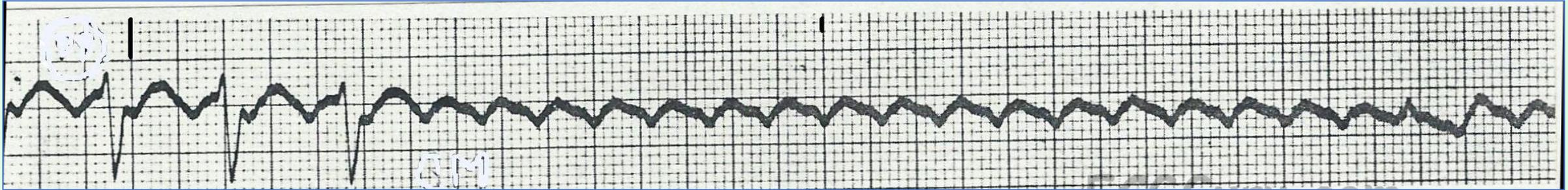
11.



Escape-capture bigeminy. Junctional escape beats followed by sinus beats.

VR approximately 80 bpm, regularly irregular. QRS width 106 ms. PRI 166 ms sinus beats only.

12.



Atrial flutter with 2:1 conduction, followed by atrial flutter with ventricular standstill.

AR 240. VR initially 120, then 0.

13.



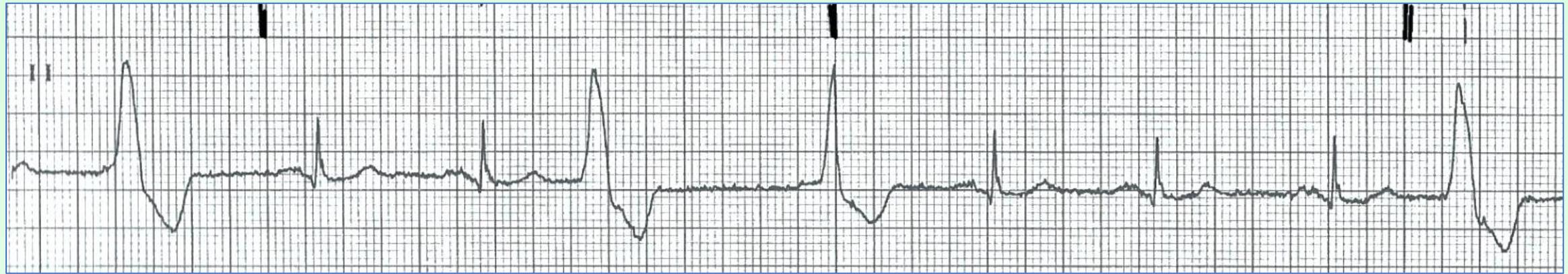
13.



Sinus rhythm with second-degree AV block, Type I. 3:2 conduction.

AR 90. VR 60. PRI 216 ms and 234 ms. Patient with inferior M.I., ST elevation, pathological Q waves, and T wave inversion. 12-Lead ECG required for complete diagnosis.

14.



14.

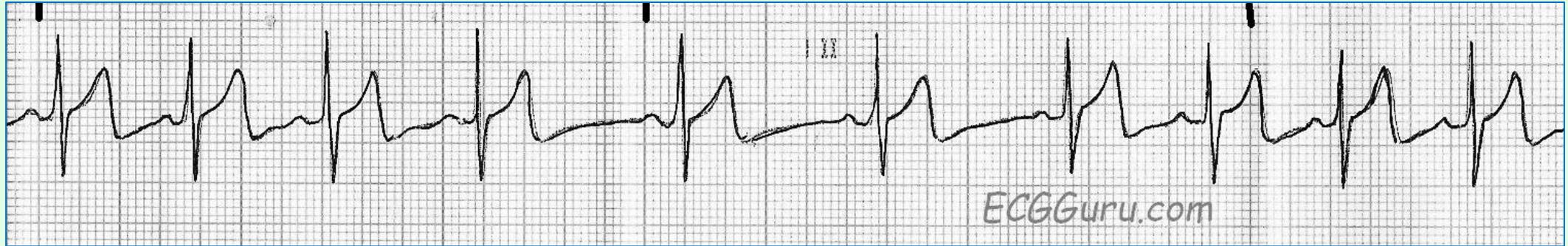


Sinus rhythm with PVCs and one fusion beat.

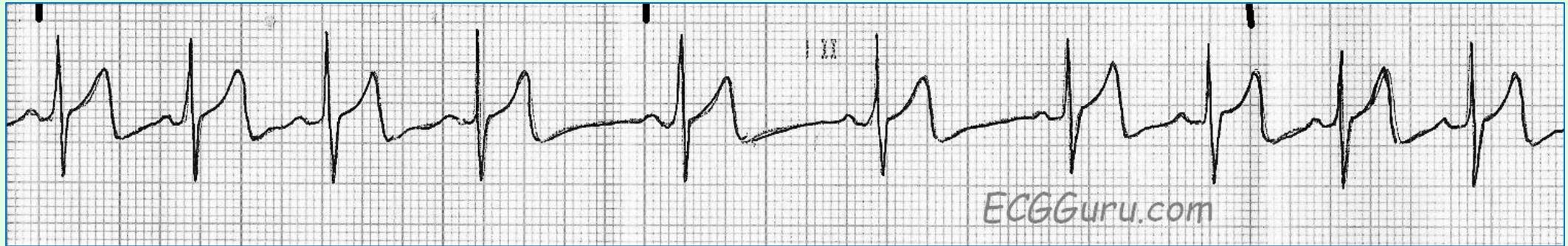
AR 63. VR 70, irregular. PRI 200 ms.

QRS width: sinus beats 108 ms, PVCs 160 ms, fusion beat 138 ms

15.



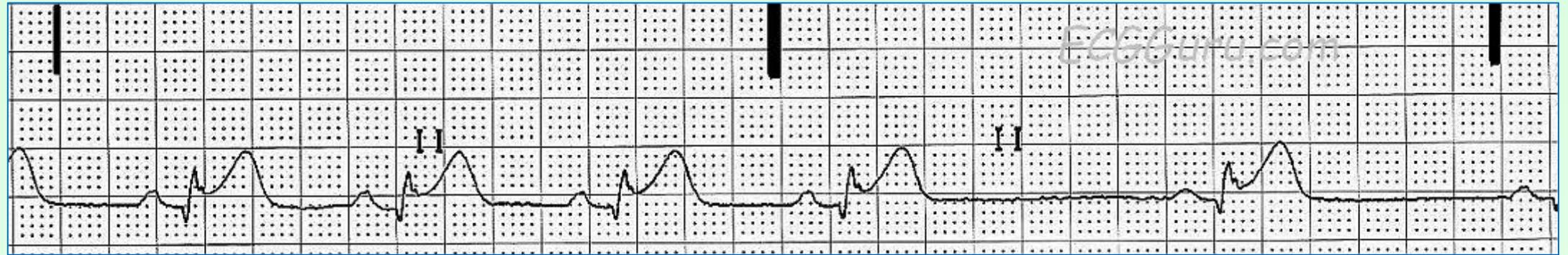
15.



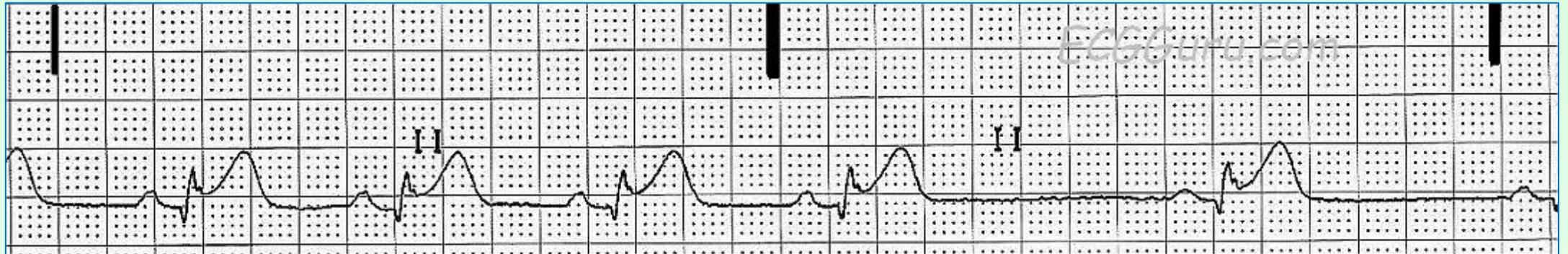
Sinus rhythm with sinus arrhythmia.

AR and VR variable, averages 80. PRI: 166 ms. QRS width 98 ms. From pre-pubescent pediatric patient.

16.



16.



Normal sinus rhythm slowing to sinus bradycardia.

AR and VR 76 slowing to 49 at end of six-second strip. ST elevation. PRI 200 ms.
QRS width 93 ms. 12-lead ECG required.

17.



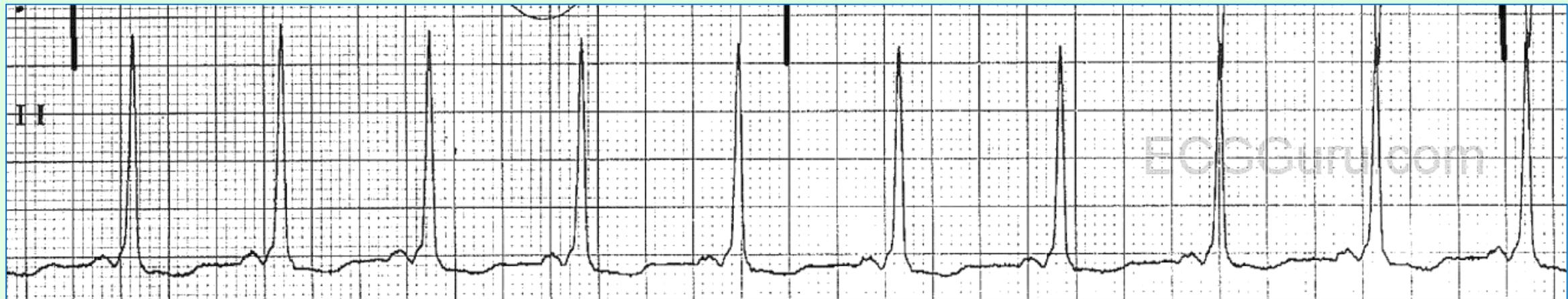
17.



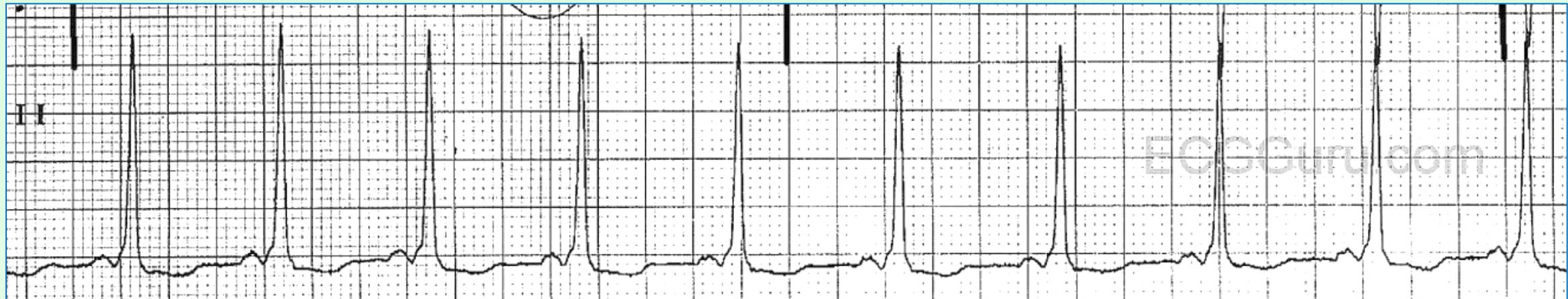
Sinus tachycardia with a PVC, then ventricular standstill.

AR 140. VR 140, then 0. PRI 170 ms. QRS width: sinus beats 62 ms, PVC 170 ms.

18.



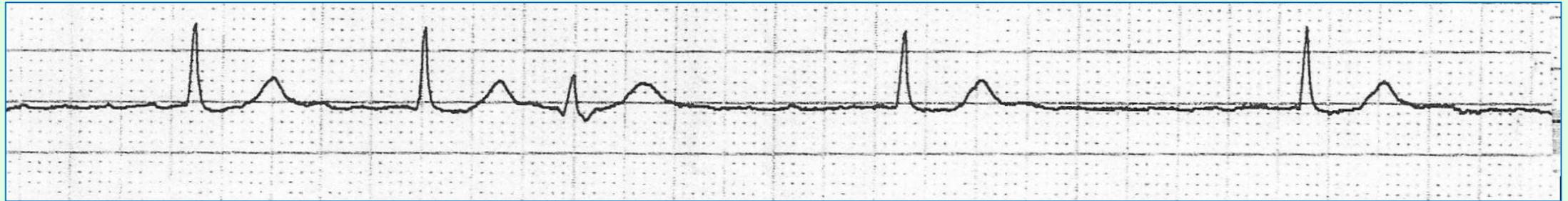
18.



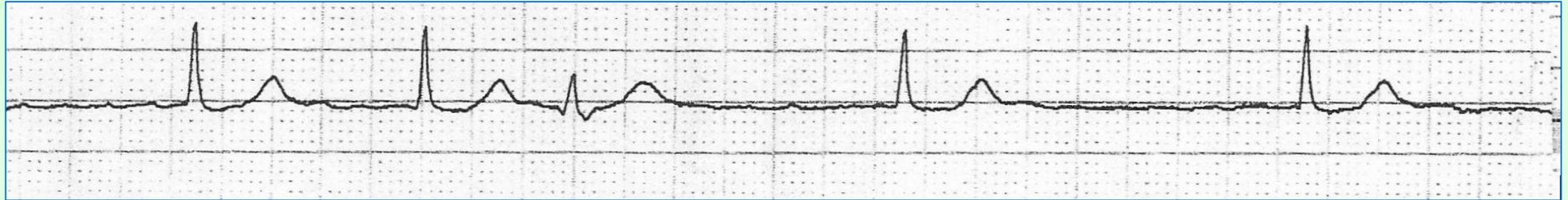
Sinus rhythm with Wolff-Parkinson-White syndrome.

AR 100. VR 100. PRI 98 ms. QRS width 123 ms with delta wave.

19.



19.



Atrial fib with a slow ventricular response. Third beat is an aberrantly-conducted Ashmann's beat.

VR approximately 50. QRS width 70 ms. Aberrant beat QRS width 148 ms with RBBB pattern.

20.



20.



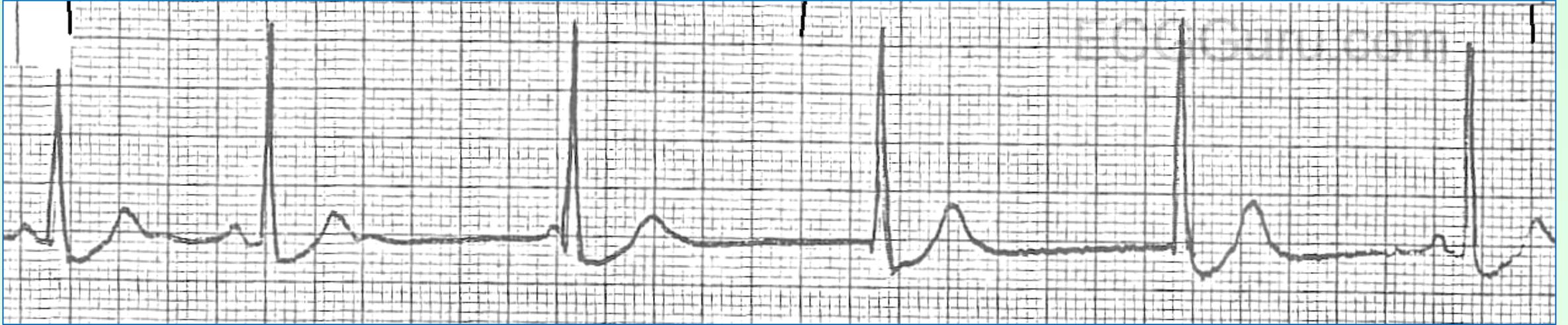
Sinus rhythm with Osborn waves (J waves) and peaked T waves.

AR 66. VR 66. PRI 130 ms. QRS width 130 ms. 12-lead ECG and clinical correlation required.

21.



21.



**Sinus rhythm slowing, with three junctional escape beats
(No. 3,4,5).**

AR 70, then slowing. VR 60 using six-second strip. PR 192 ms. QRS width 86 ms

22.



22.



Junctional rhythm.

AR 58 with retrograde P waves. VR 58. PRI 130 ms.
Alternate possible diagnosis is low atrial ectopic rhythm.

23.



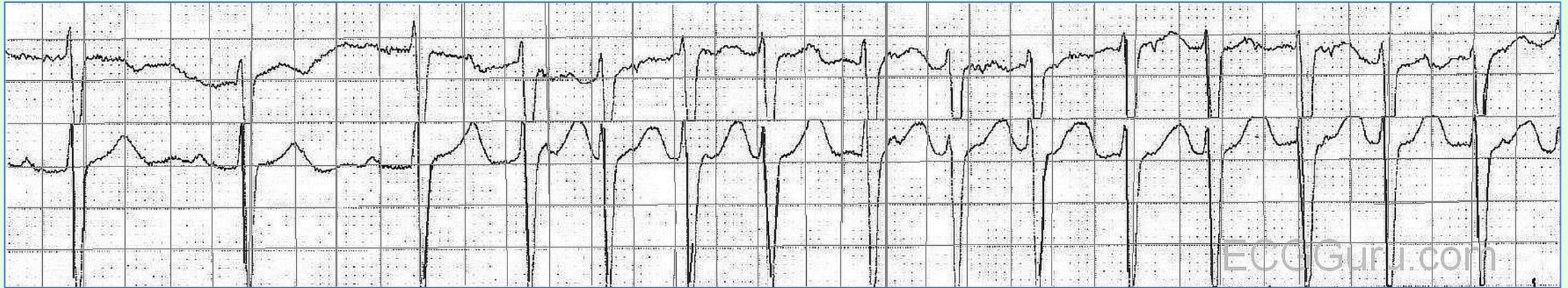
23.



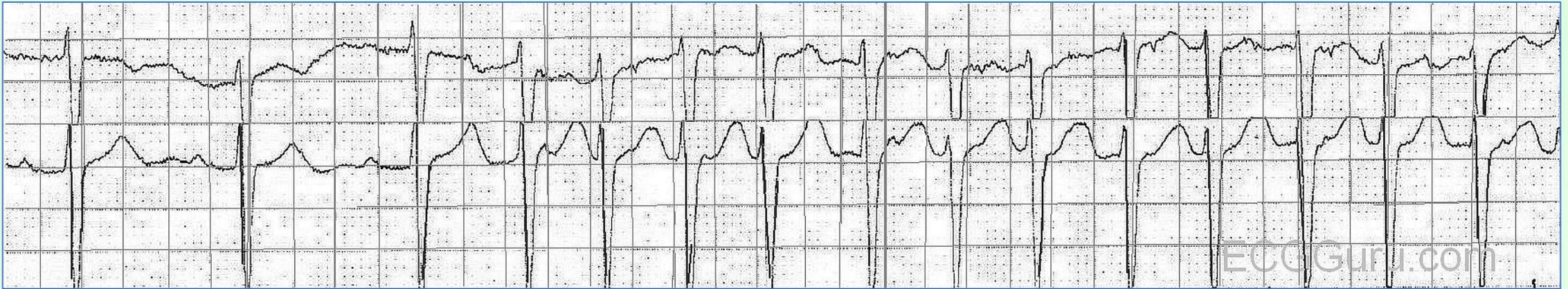
**Sinus rhythm with non-conducted PAC (after beat No. 2),
ventricular escape beat (No. 3), and PVC (No. 7).**

AR 85. VR 85 underlying sinus rhythm, 80 on this six-second strip. PRI 200 ms.
QRS width: sinus beats 89 ms, ventricular escape 123 ms, PVC 132 ms.

24.



24.



Sinus rhythm with first-degree AV block and onset of atrial fibrillation with rapid ventricular response.

Sinus rhythm: AR 68, VR 68, PRI 262 ms, QRS width 118 ms. Atrial fibrillation: VR about 130. QRS width 118 ms.

25.



25.



Very wide-complex sinus bradycardia in hyperkalemic patient.

AR 45. VR 45. PRI 147 ms. QRS width approx. 271 ms (merging with ST and T wave).
12 lead ECG required.



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