

LETTER TO THE EDITOR

To the Editor—*Concealed His or Purkinje extrasystoles?*



I read with interest the case report by Ho and colleagues.¹ I would like to present arguments suggesting alternative diagnoses.

The tracing recorded during ambulatory electrocardiogram was interpreted as “Mobitz II AV [atrioventricular] block” because “*the P-P and PR intervals are constant before and after the blocked P wave.*” However, I found a progressive increase in the 4 first P-P cycle lengths before a decrease in the last 2 (980/1060/1180/1240/1160/1100 ms). The blocked P wave is preceded by the longest P-P interval (1240 ms). In addition, the PR following the blocked P is shorter by ≈ 20 ms than the previous PR interval. Therefore, this block should be called “atypical Mobitz-type II AV block,”² which is vagally mediated and located at the AV node.² Exercise usually abolishes this type of block and fast rates with 1:1 AV conduction are possible so that pacemaker implantation is not required.

The tracing recorded during treadmill exercise stress test was interpreted as suggesting “*a His extrasystole likely blocked antegrade in the His-Purkinje system with...retrograde atrial activation...(pseudo-AV block).*” I would rather suggest we are dealing with short-coupled (≈ 320 ms) pleomorphic extrasystoles originating from the left ventricular Purkinje system.³ Thus the retrograde P wave originates from a concealed Purkinje extrasystole that fails

to depolarize the ventricle.⁴ A left ventricular origin of the Purkinje ectopy has been frequently observed in women.⁵

Only electrophysiologic study after discontinuation of flecainide will enable to confirm or infirm my presumed diagnosis. This may be a difficult task, since there is no certitude that the Purkinje ectopic beats will recur. Use of provocative tests may be necessary.⁶

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