Pseudoatrioventricular Block Manifesting as a 2:1 Atrioventricular Block and Advanced Atrioventricular Block Because of Concealed Junctional Ectopic Impulses

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A 52-year-old man was admitted to the hospital with chest discomfort. An electrocardiogram on admission demonstrated a 2:1 atrioventricular (AV) block (A). The patient had never taken medication for heart problems. The results of laboratory tests on admission were normal, including a complete blood cell count and electrolyte, creatinine, and transaminase levels. On the second day, a follow-up electrocardiogram revealed an advanced AV block (B). A His bundle electrogram revealed that premature depolarization of the His bundle, with a coupling interval (H₁–H₂) of 269 to 300 ms, was not conducted to the ventricles or the atria (concealed premature depolarization of the His bundle) and was followed by a blocked sinus P-wave proximal to the His bundle (C). Oral flecainide (50 mg/day) successfully led to the conversion of the AV block to a normal sinus rhythm (D).