ECG Contest

Response to ECG, July 2020

Respuesta al ECG de julio de 2020

Francisco Ribes,* Ángel Martínez-Brótons, and Ricardo Ruiz-Granell

Unidad de Arritmias, Servicio de Cardiología, Hospital Clínico Universitario de Valencia, Valencia, Spain

The electrocardiograms show a constant 1:1 A/V ratio. His activation always precedes local ventricular activation and QRS onset, so a ventricular origin can be ruled out1 (response 1, incorrect). Transient narrowing of QRS leads to shortening of the time from activation of the His-Purkinje-ventricular system to the earliest atrial activation (HA interval), showing that the atrial cycle depends on preceding ventricular activation; this rules out atrial tachycardia and intranodal re-entry (responses 2 and 4, incorrect). In view of the above, along with the observation that the time from His-Purkinje-ventricular activation to the first atrial activation (HA) is longer during left bundle branch morphology than with narrow QRS, a hidden left accessory pathway is confirmed to be present.2 Thus, during left bundle branch block, the ventricular circuit is extended and the activation front has to travel through more tissue to reach the atrium (response 3, correct).

REFERENCES