

## ECG Contest

## Response to ECG, August 2020

## Respuesta al ECG de agosto de 2020

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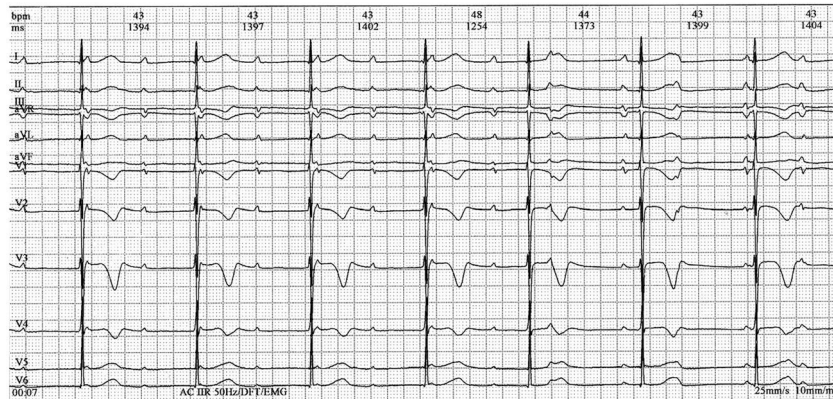


Figure 1.

The PR intervals shorten from beat to beat, until they are superimposed on the QRS complex. Negative T waves are normal until V<sub>4</sub> in children and the QTc interval is normal. Another blocked P wave can be seen in the T wave, thus ruling out isorhythmic atrioventricular dissociation (responses 1, 2, and 4 incorrect). An atrial frequency of 100 bpm is observed along with nodal escape rhythm or infra-Hisian rhythm of 48 bpm (response 3, correct). The rhythm strip confirms diagnosis of complete atrioventricular block (figure 1). Cardiac malformation and maternal anti-Ro/SSA and anti-La/SSB antibodies should be ruled out.<sup>1</sup> Studies (echocardiography, exercise testing, Holter study) are recommended to stratify the risk of sudden cardiac death and inform the need for permanent pacemaker placement.<sup>2</sup>

## REFERENCES

1. Michaelsson M, Jonzon A, Riesenfeld T. Isolated congenital complete atrioventricular block in adult life. A prospective study. *Circulation*. 1995;92:442–449.
2. Baruteau AE, Pass RH, Thambo JB, et al. Congenital and childhood atrioventricular blocks: pathophysiology and contemporary management. *Eur J Pediatr*. 2016;175:1235–1248.

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