ECG Contest

Response to ECG, June 2018

Respuesta al ECG de junio de 2018

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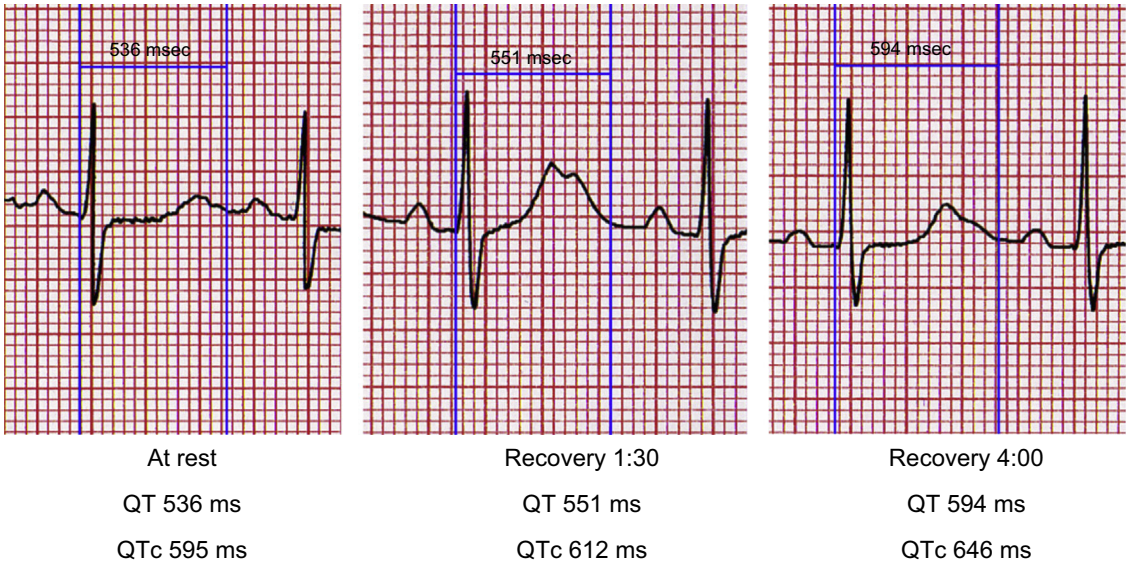

Figure.

The correct solution is number 3. The Figure shows a clearly prolonged QT interval in lead II, both at rest and in early and late recovery. Patients with type 1 long QT syndrome (LQTS1) have a significantly longer QTc interval in early recovery than those with type 2 long QT syndrome, and this difference disappears at about minute 4 of recovery.[1] Thus, prolonged QTc interval at the start of recovery can specifically identify patients with LQTS1 (response 4 incorrect), whereas both genotypes have a prolonged QTc in late recovery.[2] In the present case, the clinical diagnosis was confirmed after a mutation was found in the genetic study in exon 15 of the *KCNQ1* gene (c.1760C > T p.T587 M). No electrocardiographic or echocardiographic findings supported a diagnosis of right ventricular arrhythmogenic cardiomyopathy (response 1 incorrect). The bifid and irregular T waves present in the trace, which occasionally appear in long QT syndrome, should not be confused with nonconducted P waves (response 2 incorrect).

REFERENCES

1. Chattha IS, Sy RW, Yee R, et al. Utility of the recovery electrocardiogram after exercise: a novel indicator for the diagnosis and genotyping of long QT syndrome? *Heart Rhythm.* 2010;7:906–911.
2. Sy RW, Van Der Werf C, Chattha IS, et al. Derivation and validation of a simple exercise-based algorithm for prediction of genetic testing in relatives of LQTS probands. *Circulation.* 2011;124:2187–2194.

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