

ECG Contest

Response to ECG, September 2020

Respuesta al ECG de septiembre de 2020

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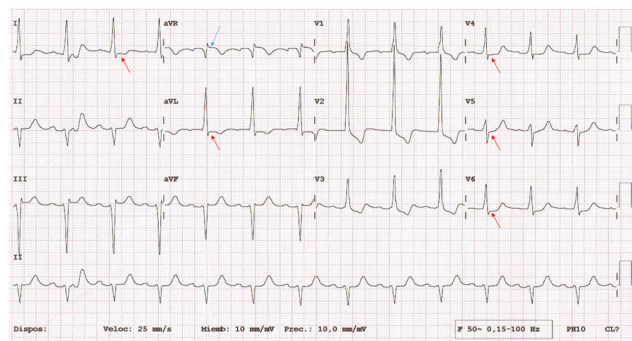


Figure 1.

LEFT SEPTAL FASCICULAR BLOCK CRITERIA
Prominent anterior QRS forces: large R wave in right-middle precordial leads (R V2 > 15 mm), increasing from V2 to V2 or V3, and decreasing from V2 or V3 to V4-V6.
Absence of first septal vector (1 _{AM}): no initial q V5-V6 or r V1-V2
Prolongation of septal activation time: Intrinsicoid deflection time in V1-V2 (≥ 35 ms), although LSF does not lead to broad QRS (>120 ms) on its own.
Negative T waves in right precordial leads

Figure 2.

The ECG before the procedure shows advanced right bundle branch block and negative T waves in leads aVF and III.

Figure 1 shows first-degree atrioventricular block and QRS of 120 ms with anterior-superior fascicular block and prominent anterior QRS forces (PAF), ST-T depression (upward arrows), and ST-T elevation in aVR (downward arrows), and repolarization changes resulting from the ischemia.

The differential diagnosis for PAF includes pre-excitation via a left lateral accessory pathway (option 2 incorrect, long PR), inferolateral infarction (option 3 incorrect, diffuse changes in repolarization point to left coronary artery or multivessel disease), right ventricular growth, and left septal fascicular block (LSFB).¹ Acute pulmonary embolism, unlike chronic pulmonary hypertension, does not present with a monophasic R wave in the right precordial leads (option 1, incorrect).

The transient nature of PAF, along with the clinical context and presence of LSF criteria (figure 2),² supported the final diagnosis (option 4, correct). LSF develops mainly due to proximal obstruction of the left anterior descending artery, before the first septal perforating branch.

REFERENCES

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