Interesting ECG

Masquerading Bundle Branch Block

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Abstract

Masquerading bundle branch block can be either of the standard type or the precordial type. In the standard type, precordial leads show right bundle branch block pattern and frontal plane leads show left bundle branch block pattern. Precordial type of masquerading bundle branch block is characterised by right bundle branch block pattern in anterior leads and left bundle branch block in leads V4 to V6. Several authors have reported a poor prognosis for masquerading bundle branch block.

Keywords: Masquerading Bundle Branch Block

The term masquerading bundle branch block was coined by Richman JL and Wolff in 1954 [1]. Two types of masquerading bundle branch block has been described: (a) standard type and (b) precordial type [2]. In the standard type, precordial leads V1-V6 are suggestive of right bundle branch block, while frontal plane leads (limb leads) resemble that left bundle branch block. The ECG shown in Figure 1 is suggestive of the standard type of masquerading bundle branch block. Lead I and aVL shows left bundle branch block pattern while V1 shows right bundle branch block pattern. In addition to these, this ECG shows atrial fibrillation and left axis deviation with rS complexes in the inferior leads (left anterior hemiblock pattern).

Figure 1: Masquerading bundle branch block
In the precordial type, leads V4 to V6 shows left bundle branch block pattern while right precordial leads V1 to V3 shows right bundle branch block pattern. Masquerading bundle branch block is considered to be a marker of poor prognosis, as reported by several authors [3-5].

Masquerading bundle branch block is thought to be caused by presence of high grade left anterior fascicular block with right bundle branch block when associated with severe left ventricular enlargement [5]. This implies extensive disease of the left ventricle and hence the poor prognosis. There is reorientation of terminal electrical forces of the QRS complex upwards and to the left so that the slurred S wave in lead I expected in right bundle branch block becomes diminutive or disappears.

References


