Electrocardiographic classification criteria for Left Bundle Branch Block

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I-According to the degree:

1.**Criteria (most used in literature):**

a) *Incomplete LBBB:* Incomplete Left Bundle Branch Block (QRS duration from 90 to 110 ms)

b) *Complete LBBB:* Complete Left Bundle Branch Block (QRS ≥ 120 ms) in adults.

c) Stricter criteria for complete LBBB: QRS duration ≥ 140 ms for men and ≥ 130 ms for women, along with mid-QRS notching or slurring in ≥ 2 contiguous leads. This new values are used for Cardiac ResynchronizationTherapy (CRT) (**Strauss 2011**)

2. **Criteria from the MexicanSchool (Sodi1964):**

a) 1st degree left bundle branch block;

b) 2nd degree left bundle branch block: a & b correspond to incomplete LBBB;

c) 3rd degree left bundle branch block or complete LBBB.

- Complete LBBB by classical criteria: QRS duration ≥ 120ms
- Stricter criteria QRS duration ≥140 ms (men) or 130 ms (women), QR or rS in leads V1 and V2, and mid-QRS notching or slurring in ≥2 of leads V1, V2, V5, V6, I and aVL.

3. **Criteriafrom the Spanish School (Bayés de Luna 2007). Global left ventricular blocks:**

a) Advanced left bundle branch block (ALBBB) or third degree (equivalent to CLBBB; QRS duration ≥ 120 ms),

b) Non-advanced global left ventricular blocks:

- First degree LBBB (partial) corresponds to types I and II of Mexican school: isolated R in V6 with more or fewer slurring but QRS duration < 120 ms.
- Intermittent or second degree LBBB: corresponds to special type of ventricular aberrancy.

II- According to topography:

a) Predivisional (90%) QRSD = 120 to 160ms

- Of the left His bundle;

• Of the truncus of the left bundle branch;

Observation: The intermittent forms are nearly always pre-divisional.

b) Fascicular or divisional: by unequal dromotropic involvement of divisions or fascicles of the left bundle branch: LAF, LPF and LSF.

c) Parietal, global Purkinjian, diffuse intraventricular, intramyocardialor intramural (in the Purkinje-muscle union). Characterized by: wider QRS, clockwise rotation of the QRS loop in the HP. In general, they point out greater myocardial involvement.

III- According to steadiness:

a) Permanent or definite: most of them.

b) Intermittent or of second degree that could be:

• **Rate-dependent intermittent LBBB (Arias 2006):**

- Tachycardia-dependent or in "phase 3";
- Bradycardia-dependent or in "phase 4".

• **Independent from heart rate:**

- Mobitz type I;
- Mobitz type II by Wenckebach phenomenon;
- By significant hypopolarization.

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