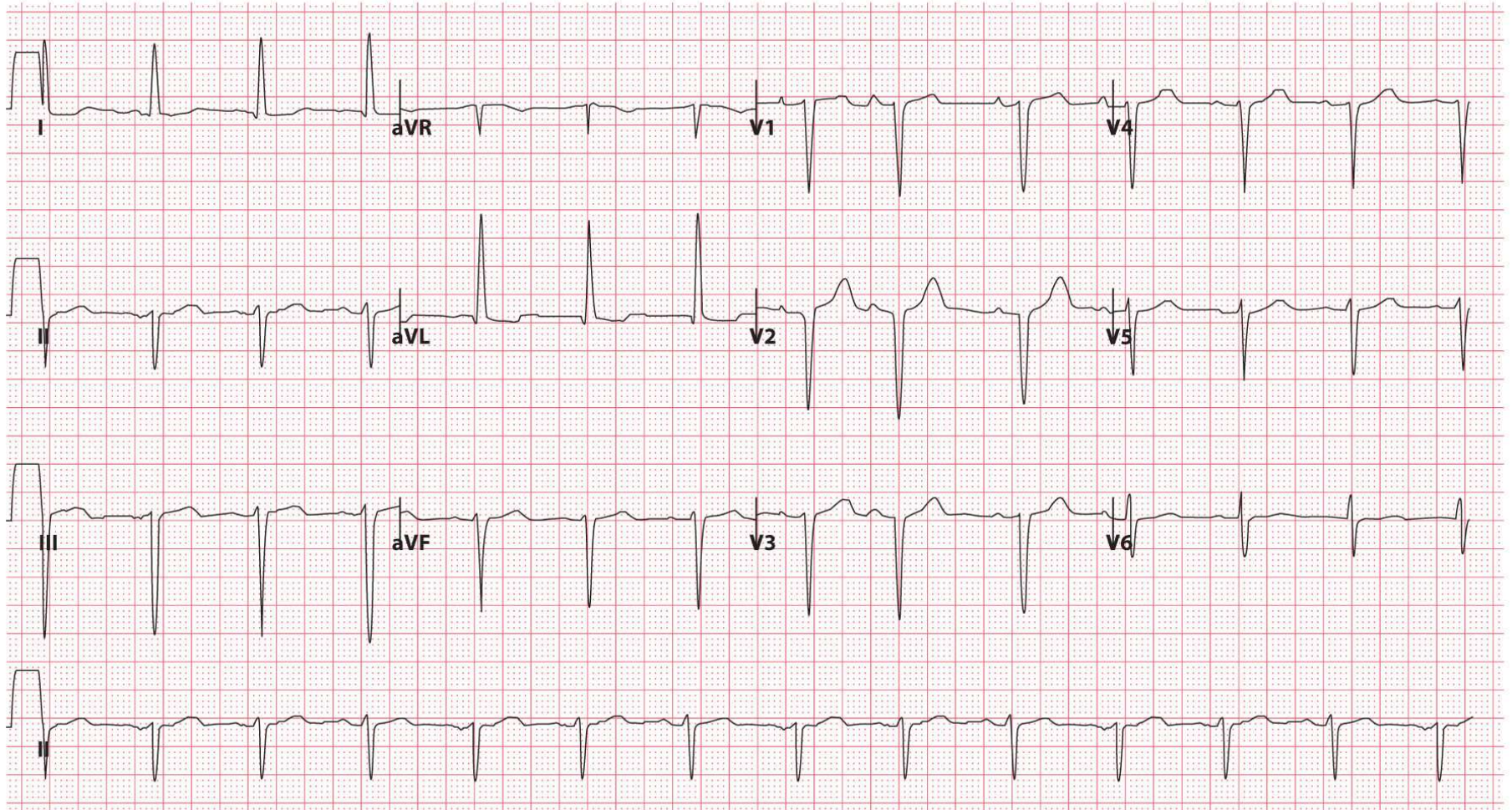


- Left anterior fascicular block (LAFB)



*Left anterior fascicular block with typical features of left axis deviation, small Qs in leads I, aVL, and poor R wave progression (pseudo-anterior MI) and high voltage QRS in aVL causing false positive LVH by ECG criteria.*

- Left axis deviation with mean QRS axis between  $-45^\circ$  and  $-90^\circ$  (net QRS voltage is positive in lead I and negative in leads II and aVF)
- qR complex (or an R wave) in leads I and aVL
- rS complex in leads III and aVF
- Normal or slightly prolonged QRS duration (80 to 100 msec)

Exception to the rule: LAFB should not be diagnosed when the QRS duration exceeds 100 msec **except** in the presence of RBBB. In RBBB + LAFB the QRS duration will be  $> 120$  msec.

- No other factors responsible for left axis deviation, such as:
  - LVH
  - Inferior wall MI
  - Emphysema (chronic lung disease)
  - LBBB
  - Ostium primum atrial septal defect
  - Severe Hyperkalemia

LAFB may result in a false-positive diagnosis of LVH based on voltage criteria in leads I or aVL.

Poor R wave progression is common with LAFB.

LAFB can mask the presence of inferior wall MI due to r waves in leads III and aVF.

At times, LAFB may coexist with inferior Q wave MI. However, since inferior MI can result in left axis deviation, and since LAFB is a diagnosis of exclusion when left axis deviation is present, LAFB should not be diagnosed unless it is shown to be present on an ECG prior to the MI.

The anterior fascicle of the left bundle branch supplies the Purkinje fibers to the anterior and lateral walls of the left ventricle.

Seen in patients with heart disease, congenital heart disease, hypertension, and rarely in normals.