Changes in the activation sequence

The heart's specific conduction system (SCS) is its electrical installation. In addition to the corresponding pulse generators (SN) and relays (AVN) it has a set of wires to send the stimulus to the muscle's cells (branches). The myocytes themselves are part of this complex conduction network, since they are able to communicate the stimulus (contraction order) to the neighbor myocytes. When a wire is damaged or broken, stimuli are quickly transmitted through other undamaged cables, and the area with the damaged wire receives **the order from the surrounding myocytes** of the correctly stimulated area, although this conduction occurs **slower** than normal (fig. 14).

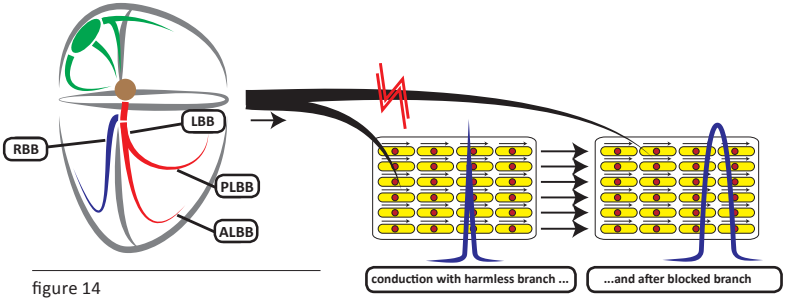

figure 14

0401 the right bundle branch block (RBBB)

If the right bundle branch stops partially or totally conducting stimuli, then the right muscular mass contracts slow and late. This occurs because the contraction order comes from the normally stimulated surrounding areas (the entire left ventricle and septum). The **delay of the right muscle masses generates a slow wave that can be seen at the end of the QRS**, and will logically be negative in the left leads (they see it "from the back") and positive in the right ones (fig. 15).

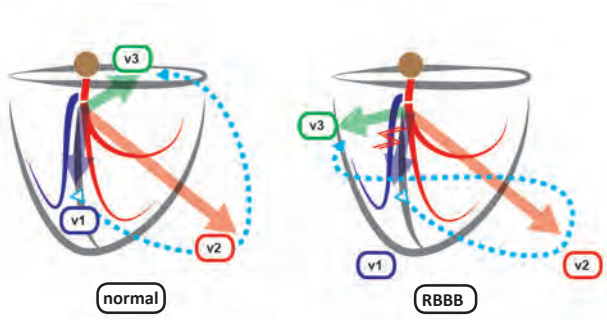

figure 15 – RBBB vectors

The QRS maintains the septal vector (v1) and the second or ventricular vector (v2) which depends on the large LV mass. But after this, the delayed right mass depolarization arrives, changing the third vector (v3), which is expressed as a wide terminal wave. The more advanced block the bigger this slow wave will be (more right muscle mass is disconnected).

Therefore a **slow and wide S wave will be seen in left leads DI, aVL, V5-6**, which is called "uncinated" due to its female fingernail appearance. Also there will exist a **terminal R (called R ', R prime) in right leads V1-2**, which isn't

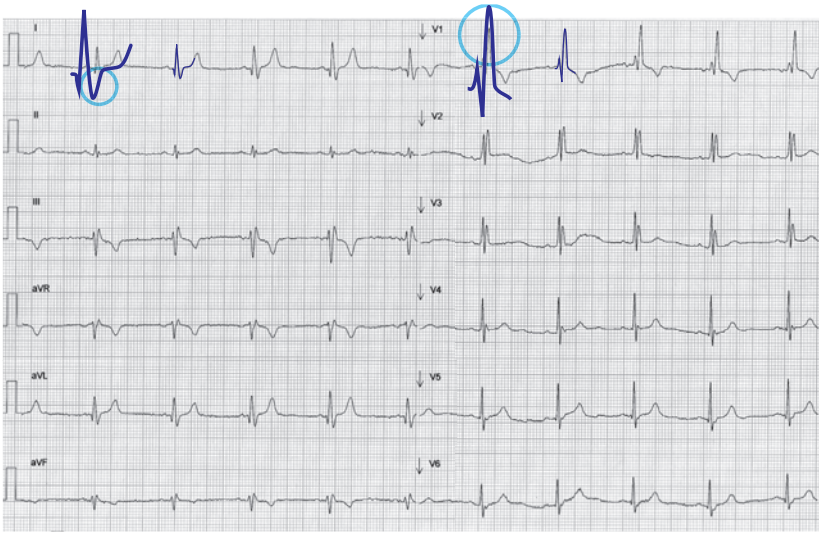

figure 16 – RBBB