

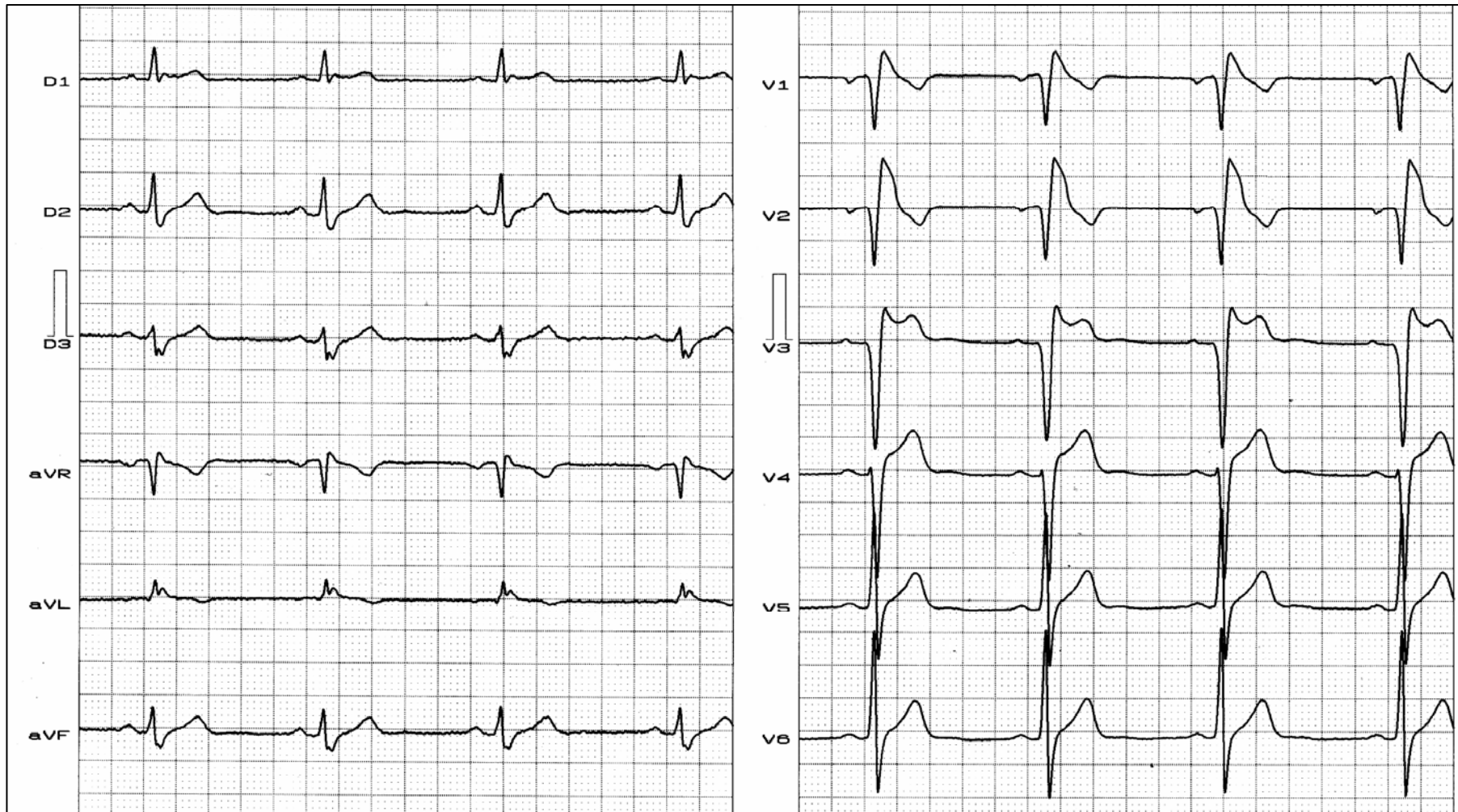
**Spontaneous Type 1 ECG
Brugada pattern observed
in a patient with
Chagasic Cardiomyopathy
(dromotropic form)**

Name: PGBS
Weight: 67 Kg

Sex: Male
Height: 1,70 m

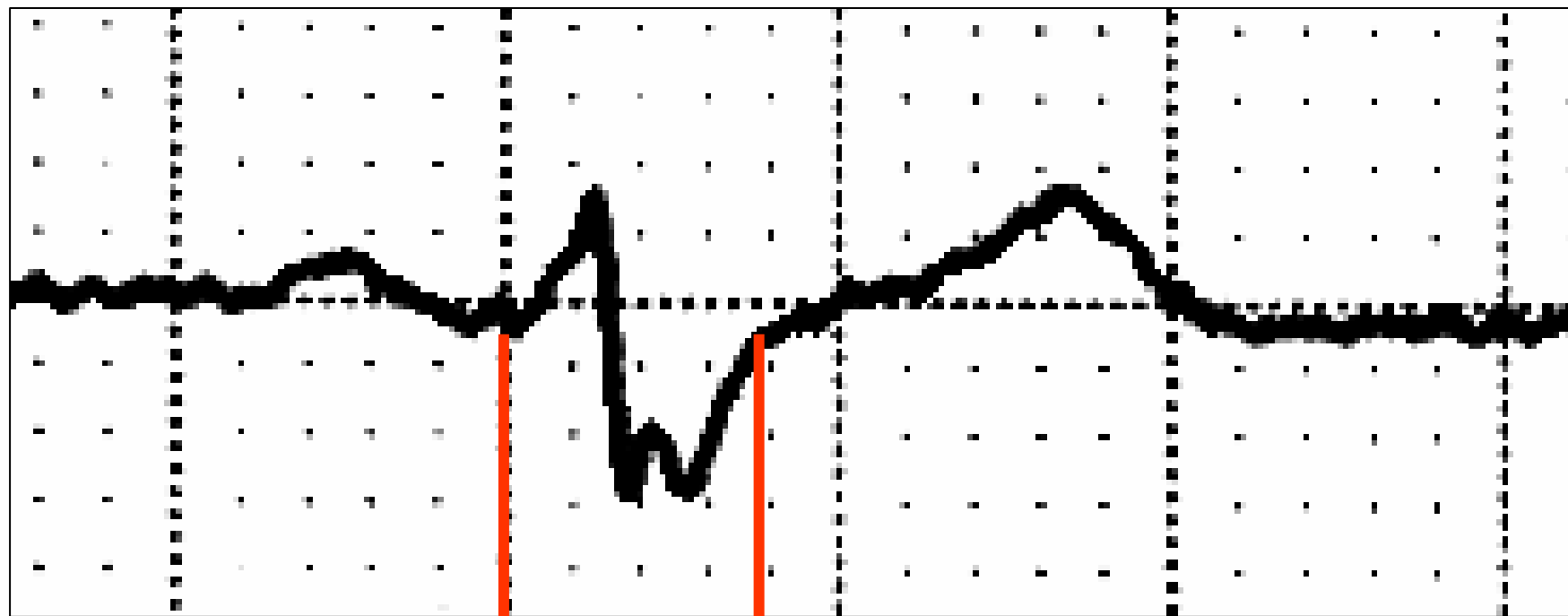
Age: 32 yo.
Biotype: Normoline

Race: Caucasian
Date: 23/09/2008



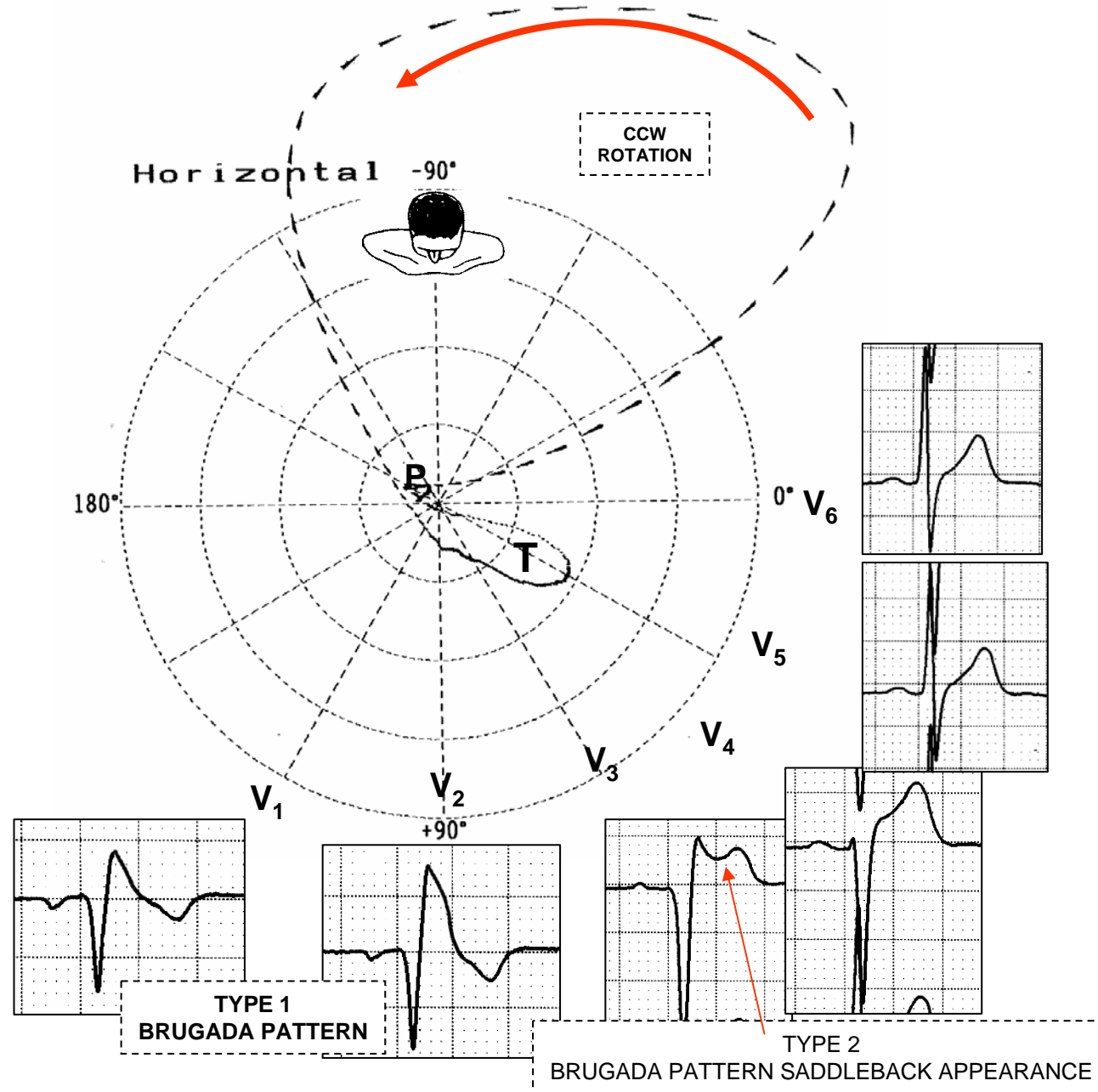
Clinical Diagnosis: Chagasic Cardiomyopathy. Positive serology reactions. Dromotropic form. Normal Echocardiogram.

ECG diagnosis: QRSd: 150ms, broad final wave in VR and broad final S wave in inferior leads. Type 1 Brugada pattern in V1 and V2 and type 2 (saddleback appearance) in V3. Complete RBBB (duration QRS criteria). Peripheral or divisional RBBB form.

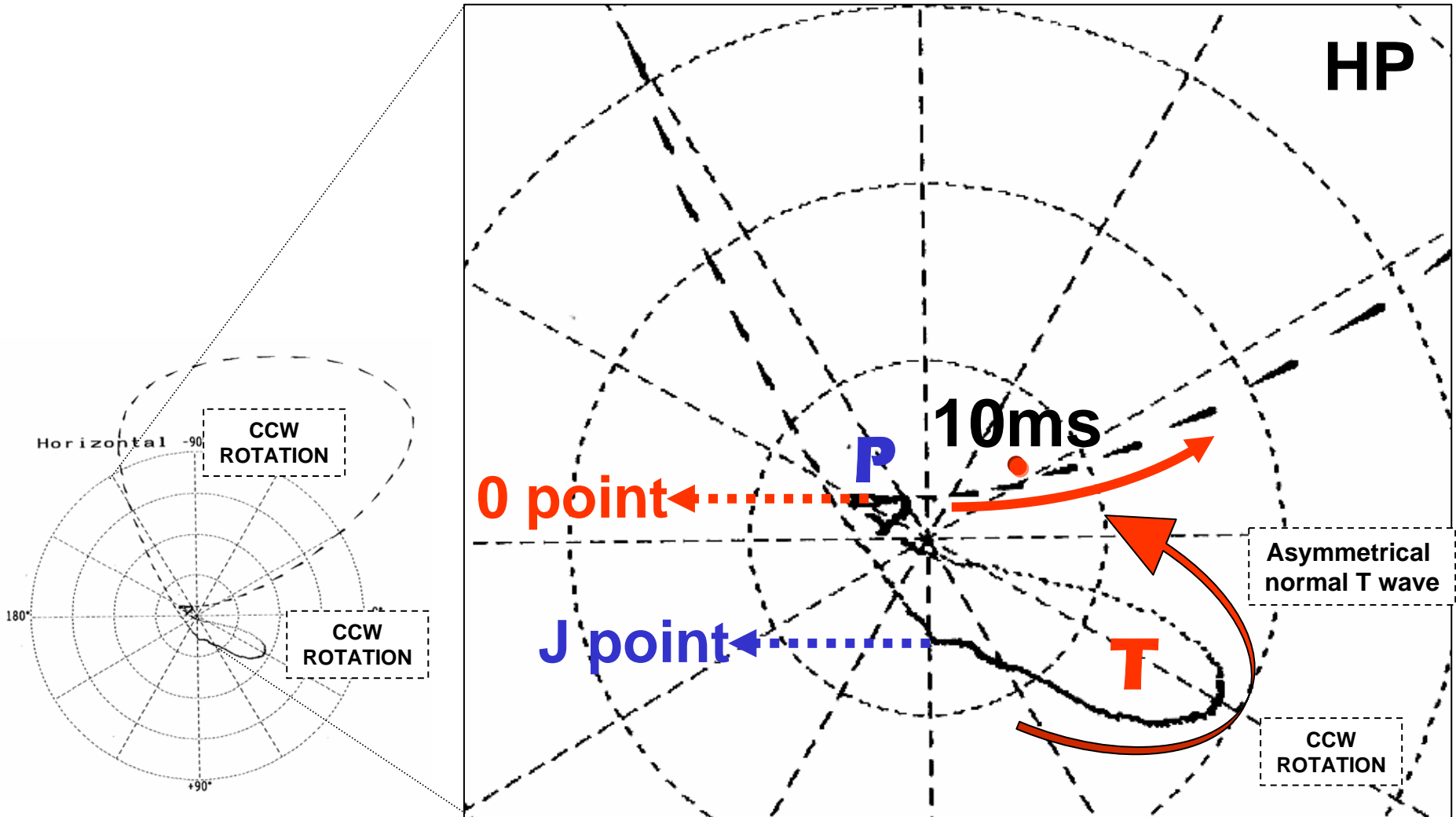


QRSd: 150ms

ECG/VCG HORIZONTAL PLANE CORRELATION



0 point: it corresponds to the end of biatrial chamber activation, QRS loop onset (because PR segment does not exist, it is only a point) and the end of ventricular repolarization (T loop).

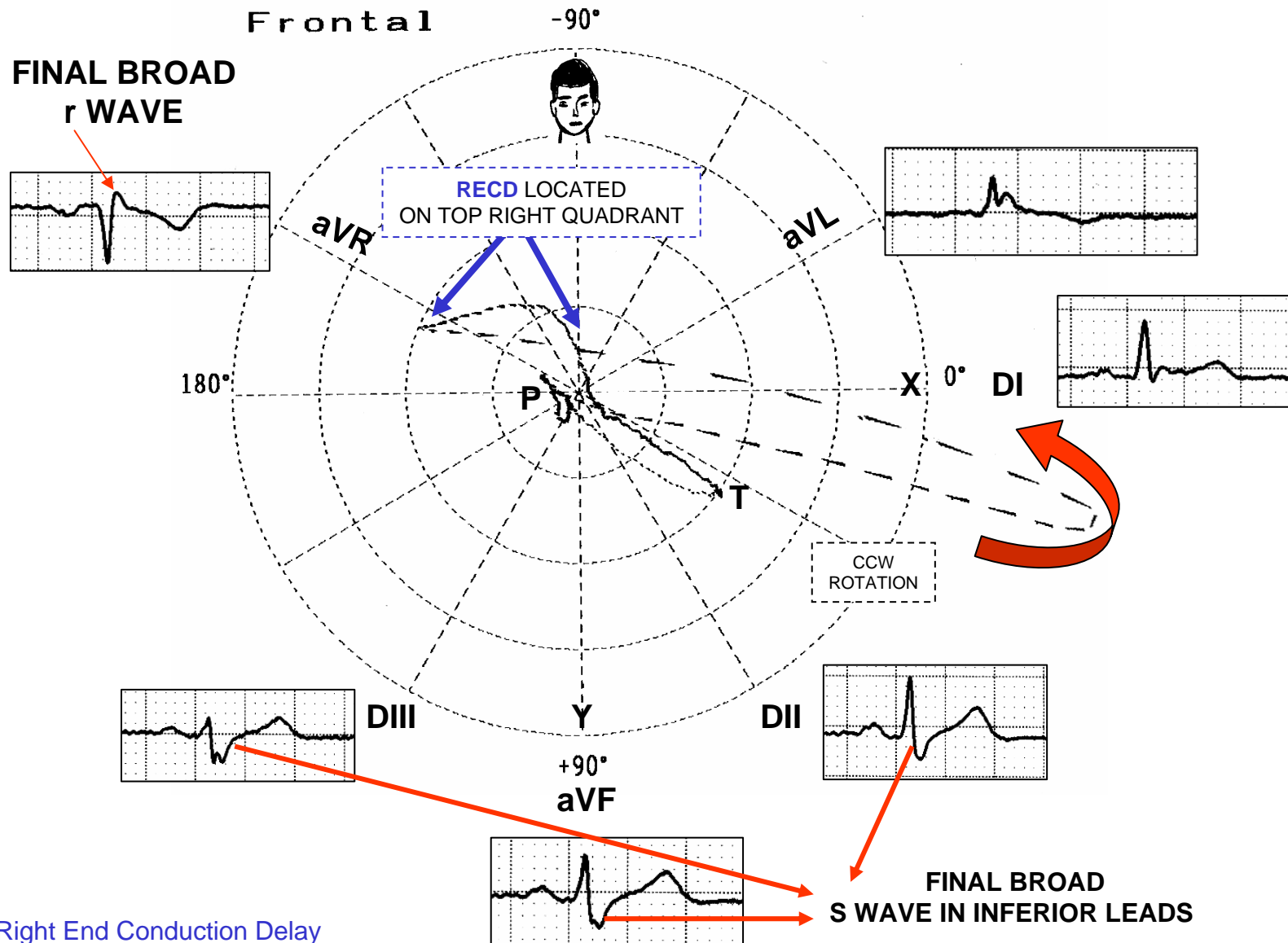


J point: in vectorcardiography, it corresponds to 3 elements: end of ventricular depolarization (QRS complex); beginning of repolarization (ST segment) when it does not present depression or elevation, and T wave onset. In situations where there is depression or elevation of ST segment, the J point does not coincide with the 0 point, and the greater or lesser distance between both points indicate the greater or lesser ST segment elevation or depression. The phenomenon is observed in early repolarization, acute phase of infarction, variant angina, pericarditis, Type 1 ECG Brugada pattern, arrhythmogenic right ventricular dysplasia, and others acquired Brugada pattern.

CAUSES OF QR OR QRS PATTERN IN RIGHT PRECORDIAL LEADS V1-V2

- Right atrial enlargement (indirect signal): significant dilatation of the right atrium: E.g.: Ebstein's anomaly, tricuspid insufficiency.
- Right Bundle Branch Block associated with septal myocardial infarction (A1).
- Severe Right Ventricular Enlargement (Type A).
- Artifacts due to misplacement of leads by one intercostal space too high.
- Situs inversus: ventricular inversion: inverted septal activation.
- RBBB with isoelectric initial r wave in V1: first vector (10ms) directed to front and leftward (our case).

ECG/VCG FRONTAL PLANE CORRELATION

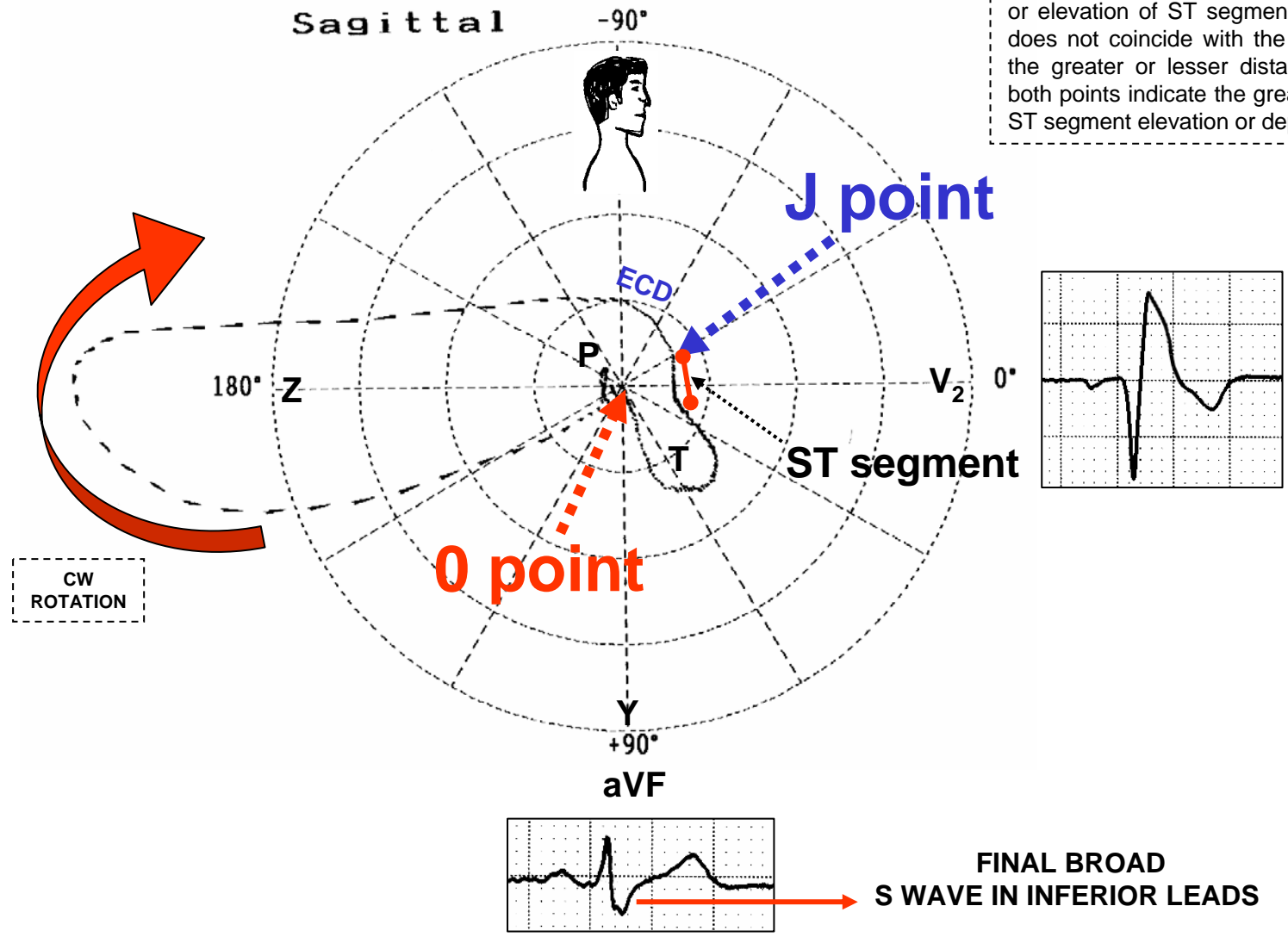


RECD: Right End Conduction Delay

ECG/VCG RIGHT SAGITTAL PLANE CORRELATION

0 AND J POINTS ARE NOT COINCIDENT

In situations where there is depression or elevation of ST segment, the J point does not coincide with the 0 point, and the greater or lesser distance between both points indicate the greater or lesser ST segment elevation or depression.



J POINT: LOCATED TO FRONT AND UPWARD RELATED TO 0 POINT
0 POINT: LOCATED TO BACK AND INFERIOR RELATED TO J POINT

FINAL BROAD S WAVE IN INFERIOR LEADS

CONCLUSION

- Complete (QRSd: $>120\text{ms}$) post-divisional or peripheral RBBB: ECD located on top right quadrant in frontal plane.
- There are not typical “glove finger” RECD characteristic of troncular RBBB.
- Type 1 ECG Brugada pattern: genuine disease? or Associated with Chagas Disease?