

Brugada Syndrome

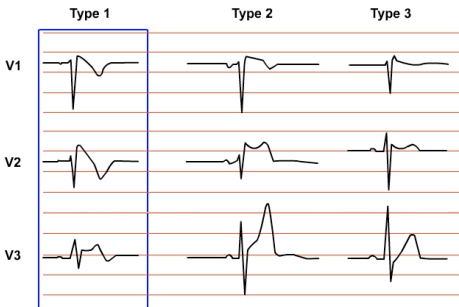
Antzelevitch C et al. Brugada Syndrome: Report of the Second Consensus Conference. *Circulation*. 2005; 111:659-670.

- Genetically linked, cardiac sodium channelopathy
- High risk for sudden death in young, healthy adults because VTach/VFib
- Mean age of sudden death = 41 ± 15 years
- Higher prevalence in males and Asian descent
- Atrial fibrillation associated in 10-20% cases

EKG findings: 3 types

Type 1 – Most specific for Brugada Syndrome

- Highest risk for symptoms of syncope and sudden death



| | |
|--------------------------------------|----------------------|
| J wave amplitude | $\geq 2\text{mm}$ |
| T wave | Negative |
| ST-T configuration | Coved type |
| ST segment (terminal portion) | Gradually descending |

| | |
|--------------------------------------|----------------------------|
| J wave amplitude | $\geq 2\text{mm}$ |
| T wave | Positive or biphasic |
| ST-T configuration | Saddleback |
| ST segment (terminal portion) | Elevated $\geq 1\text{mm}$ |

| | |
|--------------------------------------|-------------------------|
| J wave amplitude | $\geq 2\text{mm}$ |
| T wave | Positive |
| ST-T configuration | Saddleback |
| ST segment (terminal portion) | Elevated $< 1\text{mm}$ |

Differential diagnosis:

After electrical cardioversion

Arrhythmogenic RV dysplasia

Atypical right BBB

Acute MI, esp RV infarct

Acute myopericarditis

Compression of RV outflow tract

Disorders of central/auton nerv systems

Dissecting aortic aneurysm

Duchenne muscular dystrophy

Friedreich ataxia

Early repolarization, especially in athletes

Hypothermia

Pericardial effusion

Pulmonary embolism

Left ventricular hypertrophy

Mediastinal tumor

Pectus excavatum

Treatment: Implantable cardiac defibrillator for Brugada Type 1 PLUS:

- Aborted sudden cardiac death
- Syncope, seizure, or nocturnal agonal respirations without alternative cause
- Family hx of sudden cardiac death (likely from Brugada) AND positive EPS study
- A positive EPS study

-- Otherwise: close followup with cardiologist



ALiEM

Academic Life in
Emergency Medicine