

Brugada Syndrome



PLAY PICMONIC

Defective Myocardial Sodium Channels

Sodium-Gate with No-Sign

The pathology seen in Brugada syndrome is thought to be due to defective myocardial sodium channels that reduce the sodium inflow current, thereby reducing the duration of action potentials. The exact mechanism of how this results in fatal arrhythmia/sudden cardiac death is not fully understood.

Predominance in Asian Males

Asian Male

Brugada syndrome shows a predominance in Asian males.

Autosomal Dominant

Domino

Brugada syndrome has an autosomal dominant inheritance pattern, though it exhibits variable expression.

Pseudo-Right Bundle Branch Block Pattern

Sumo Grabbing the Right Heart

Typically, the ECG findings of Brugada syndrome consist of a pseudo-right bundle branch block and persistent ST segment elevation in leads V1 to V2. On EKG, this is seen as a coved ST-elevation in the precordial leads V1-V2, as is seen in a right bundle branch block, however there is no widening of the S wave in the lateral leads V5-V6 as is seen in a right bundle branch block, hence the "pseudo".

Persistent ST Elevations in Leads V1-V2

Elevated Street over V1-Wand and V2-Tutu

A pseudo-right bundle branch block pattern and persistent ST elevations in leads V1-V2 is the characteristic finding on EKG associated with Brugada syndrome.

Risk of VTACH and Sudden Cardiac Death

V-Tack Card Running from Heart-Tombstone

Patients with Brugada syndrome are at risk for experiencing long runs of ventricular tachycardia, in which the ventricles beat at an excessively fast rate that does not allow for adequate ventricular filling during diastole, resulting in significantly compromised cardiac output.

Syncope

Sink-of-Peas Fainting

Patients with Brugada syndrome may experience syncopal episodes due to sustained runs of ventricular tachycardia, causing significantly reduced cardiac output to the brain.

Management

ICD

Icy- D

Patients with Brugada syndrome who have experienced syncope or episodes of Vtach should have an implantable cardioverter-defibrillator or ICD implanted.

Antiarrhythmics

Ant-Tie-Arrhythmia-Drummer

Anti-arrhythmics, namely quinidine and amiodarone, may be indicated in some patients with Brugada in addition to an ICD