

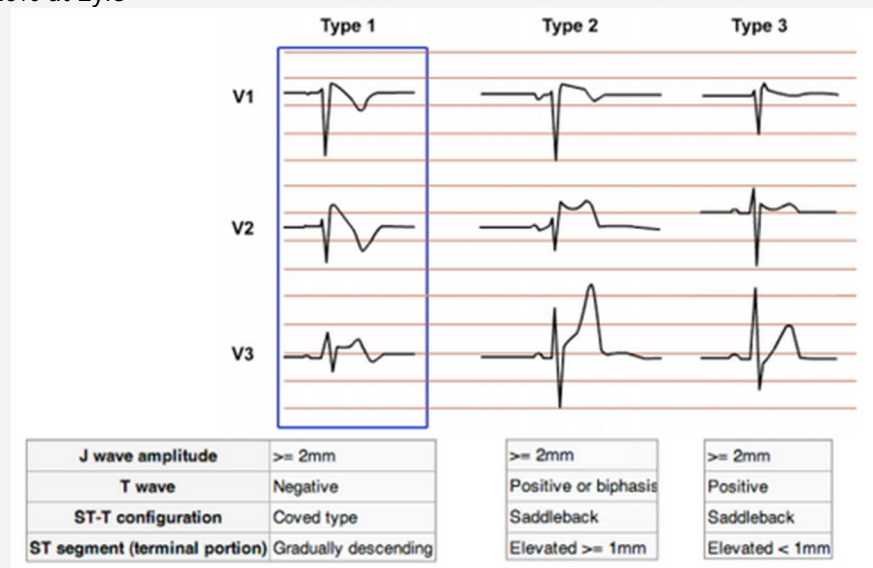
Brugada Syndrome and WPW

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Brugada Syndrome

Epidemiology

Responsible for 60% cases idiopathic VF
 50% have malignant arrhythmias
 M>F; most common in SE Asia
 Usually present age 30yrs
 30% develop during febrile episode; 70% induced by meds (eg. Na blockers)
 Untreated mortality 20% at 2yrs



Cause

Autosomal dominant
 Cardiac sodium channelopathy
 Structurally normal heart, no IHD

ECG

Long PR
 Partial RBBB
 STE in V1-3, downsloping ST segment
 TWI V1-3
 Short QT

Diagnosis

Brugada pattern on ECG + at least one of:
 1. Syncopal episodes
 2. VF
 3. Polymorphic VT
 4. Sudden cardiac death in relative $< 45\text{yrs}$
 5. STE in family members

Management

ICD implantation (if symptomatic or positive flecainide challenge)
 Avoid Ia and Ic, and Na channel blockers



Wolff-Parkinson-White Syndrome

Epidemiology

Pathway in 1-3% population, M>F

50% develop symptoms

Assoc with: Ebstein's anomaly (10%), HOCM, tuberous sclerosis

Pathophysiology

Accessory pathway

Orthodromic conduction (95%): narrow QRS; returns through accessory pathway

Antidromic conduction (5%): wide QRS; travels down accessory pathway; risk degeneration to VF

Symptoms

SVT 40-80%; AF 10-20%

ECG

Short PR (<0.12)

Delta wave (depolarisation of free V wall)

Tall R wave in V1 (suggests lateral bypass tract)

QRS >0.1s; may get bizarre ST/T wave changes mimicking MI

Lown-Ganong-Levine: short PR without delta wave

WPW + AF with antidromic conduction

1. Irregularly irregular
2. Very fast rate (>200bpm) (bypass tract short refractory period)
3. Variable QRS morphology (wide, bizarre)
3. Fusion beats (AV nodal path and accessory pathway simultaneously)



Management

Contraindicated drugs:

Adenosine

Beta blockers

Calcium channel blockers

Digoxin



May block the AV node and cause unopposed conduction down accessory pathway -> VF

Amiodarone: 5mg/kg iv over 20mins, then 10mg/kg over 24hrs

Flecainide 2mg/kg IV over 30mins (if structurally normal heart and no IHD)

Procainamide 30mg/min to max 17mg/kg

If in doubt: Irregular wide complex tachycardia - electrical cardioversion

Definitive management: catheter ablation of accessory pathway

WPW + SVT (narrow complex)

- treat as per usual SVT

1. vagal manoeuvres

2. Adenosine

2. Verapamil 1mg/min up to 15mg (Check BP between doses) CI: concurrent beta blocker