

Ventricular Tachycardia

Pathological broad complex tachycardia

Re-entrant circuits outside the Bundle of His

Most commonly ischaemic heart disease and cardiomyopathy

Arrhythmogenic Right Ventricular Dysplasia in young people

Symptoms and Signs

- Palpitations
- Dizziness
- Syncope
- Angina



ECG – broad abnormal QRS complexes

(Can sometimes be confused with Supraventricular tachycardia with bundle branch block. If in doubt always treat as VT).

Treatment



Haemodynamic compromise (chest pain, reduced consciousness, SOB) - urgent cardioversion

No haemodynamic compromise - amiodarone

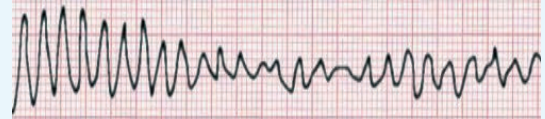
Prophylaxis is with antiarrhythmic drugs.

Automated Implantable Cardioverter Defibrillator if poor LV or recurrent

Ventricular fibrillation

Very fast and chaotic ventricular rhythm.

You can think of it as each muscle fibre contracting on its own, not as a whole, and so there is no mechanical effect (no blood is pumped out).



ECG showing Ventricular fibrillation

Treatment



Immediate DC cardioversion

The quick and easy guide to Tachycardias

DESCRIPTION	RATE	RHYTHM
Irregular <i>No P waves</i>	<180	AF
Narrow, fast and regular <i>F waves</i>	150	Atrial Flutter
Narrow, fast and regular <i>Abnormal Ps</i>	100-140	Atrial Tachycardia
Narrow, fast and regular	160-280	SVT
Broad, fast and regular	100-240	VT
Irregular and ugly	>100	VF

Electromechanical dissociation (EMD)

Electrical activity with no muscle activity.

See ACLS Algorithms for treatment of pulseless electrical activity

Bradycardias

Sinus bradycardia

- Normal in two situations: sleep and well-trained athletes
- Ischaemia of sinus node (e.g. during a myocardial infarction)
- Hypothermia
- Hypothyroidism
- Drugs (β -blockers, digoxin)
- Raised intra-cranial pressure (a compensatory response)

Treatment



In persistent and symptomatic bradycardia a pacemaker may be utilised; in the acute situation intravenous atropine is used.