

Palpitations:
A Basic Approach

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Palpitations are the uncomfortable awareness of the beating heart.



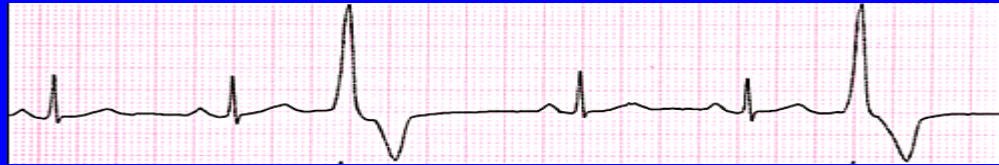
Palpitations: Evaluation and Outcomes

- 190 consecutive pts with palpitations at a university medical center over 8 months
- H & P, diagnostic w/u, psych interview
- Mean age 46yo, 61% female, 74% white, 57% >1 yr of college, 32% prior heart disease
- Etiologies: cardiac 43%, psych 31%, misc 10%
- Outcomes:
 - 1 yr mortality 1.6% in both cardiac and psych groups
 - 1 yr recurrence rate 75% (all groups)

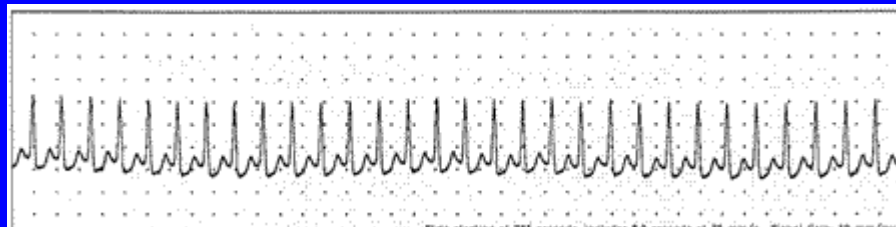
Palpitations: History

Symptoms:

- “flip-flopping in chest” – isolated PACs or PVCs



- “rapid fluttering in chest” – atrial or ventricular arrhythmias
- “pounding in the neck” – AV node reentrant tachycardia



Palpitations: History

Mode of Onset:

- Abrupt suggests paroxysmal abnormal tachycardia, though sinus tach may start abruptly in anxiety.

Mode of Termination:

- Abrupt suggests paroxysmal arrhythmia, though high adrenergic tone caused by arrhythmia may result in consequent sinus tach.

Palpitations: History

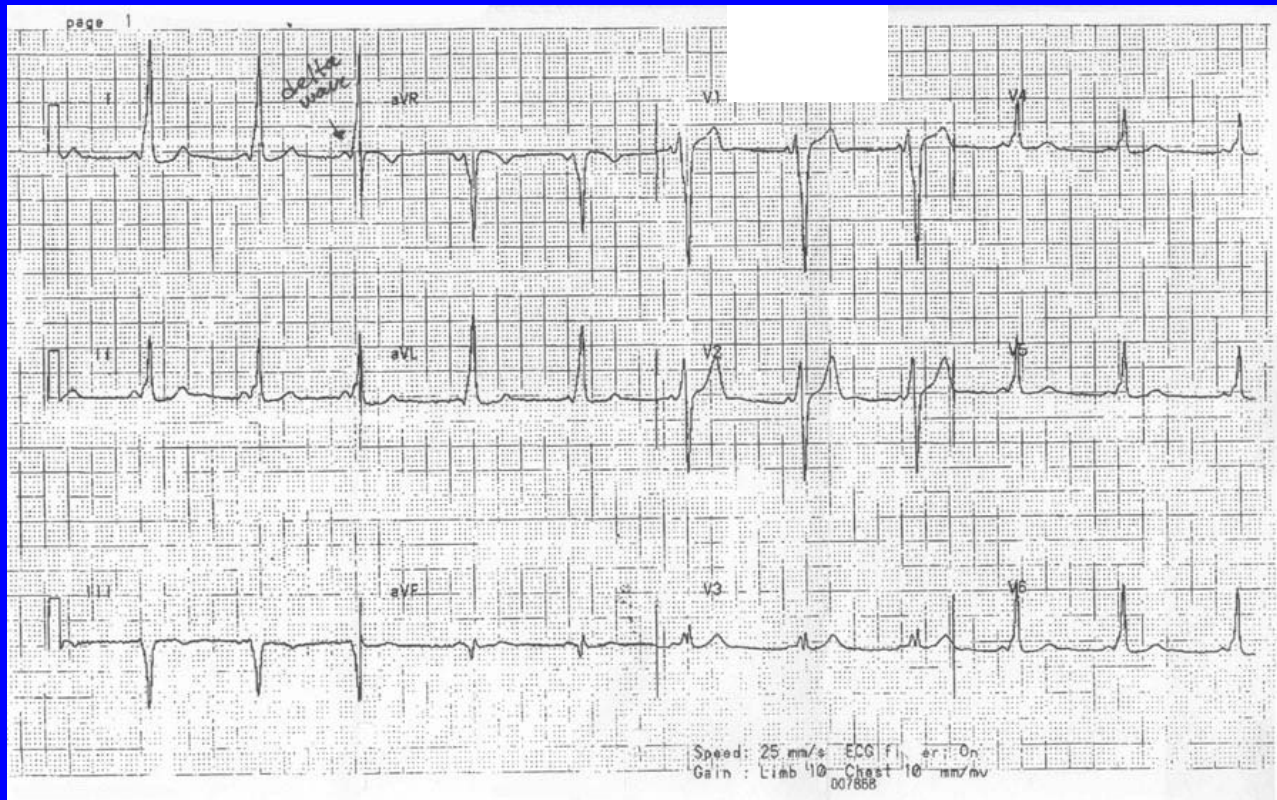
Characteristics:

- Rapid, irregular – AF, AFL, Atrial tachycardia, multiple PACs or PVCs
- Rapid, regular – SVT, VT

Circumstances:

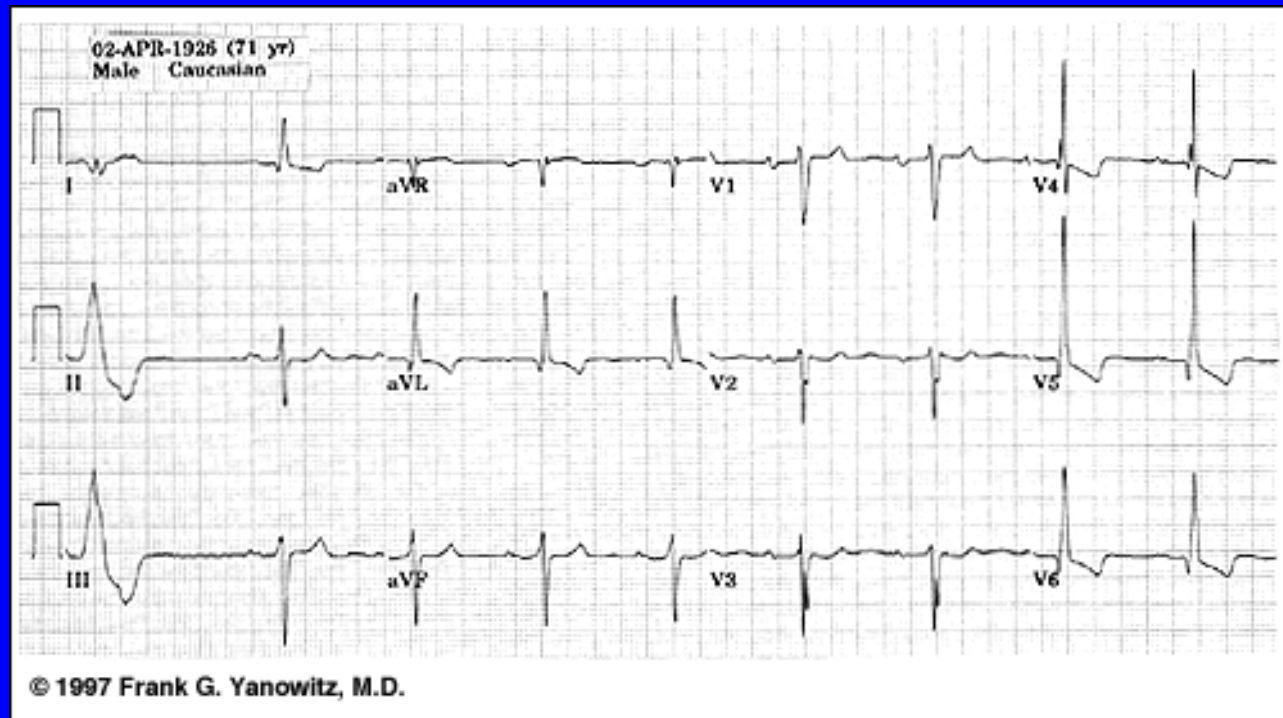
- Panic/anxiety – the chicken or the egg?
- Catecholamine excess
 - Exercise – idiopathic RVOT VT, AF
 - Emotional startle – Long QT syndrome

Palpitations: Baseline ECG



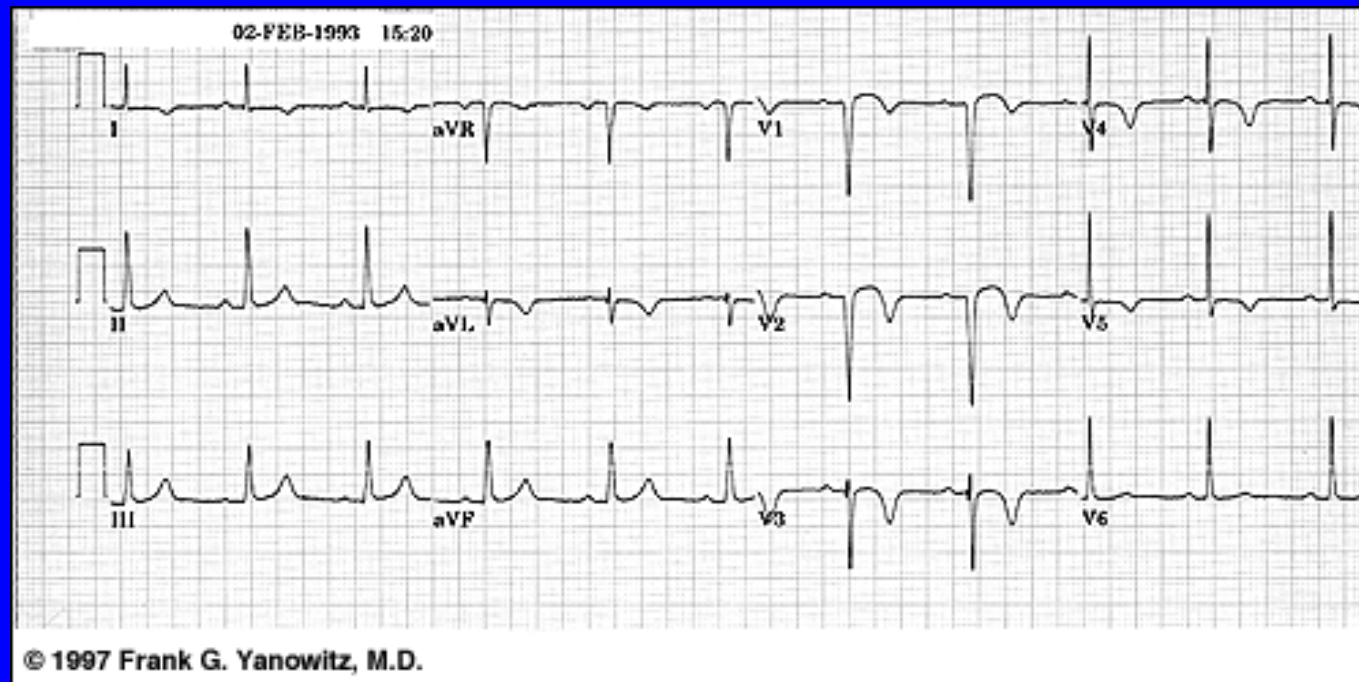
Wolff-Parkinson-White

Palpitations: Baseline ECG



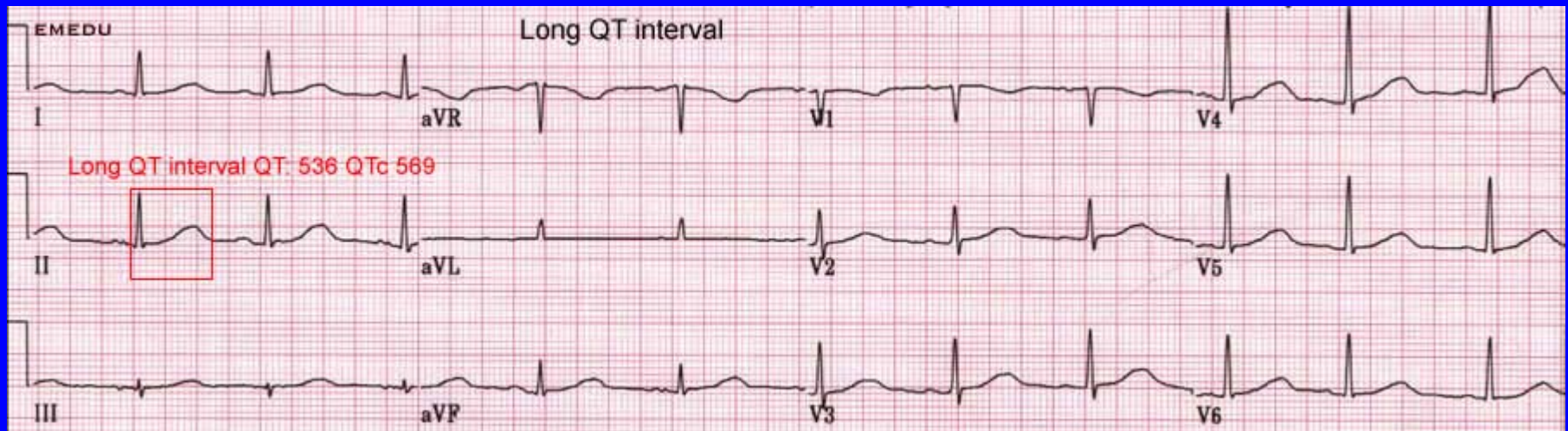
LVH with strain and LAE

Palpitations: Baseline ECG



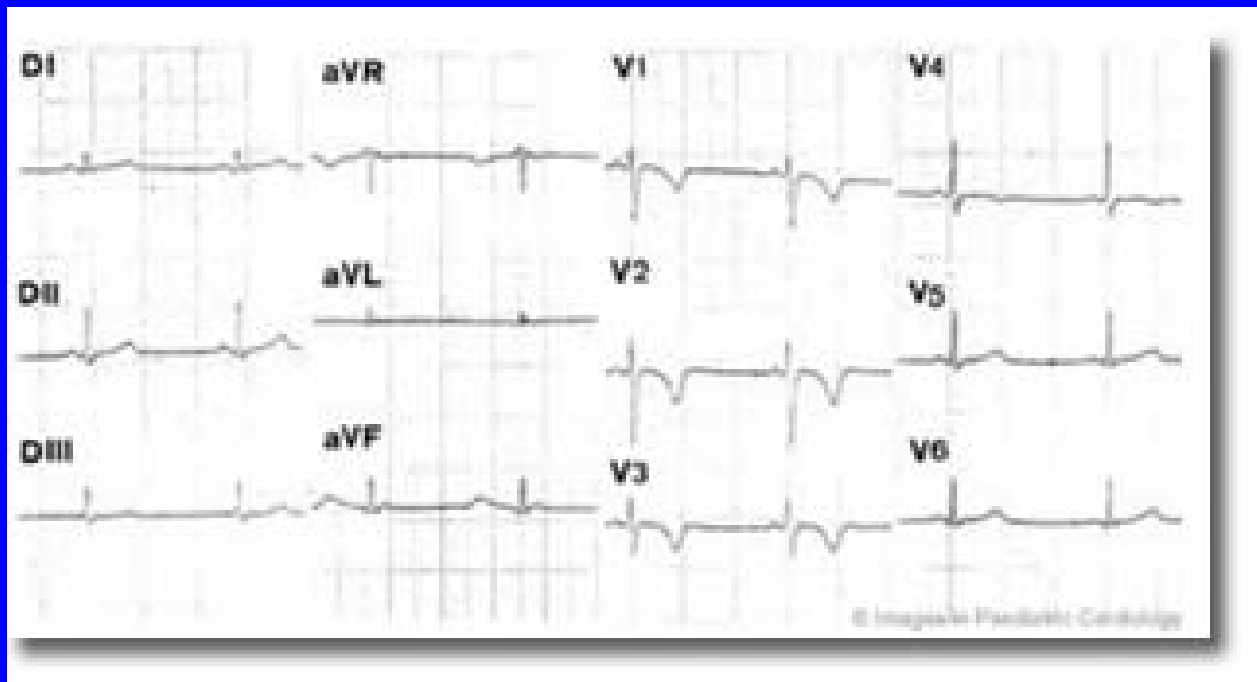
Old ASMI

Palpitations: Baseline ECG



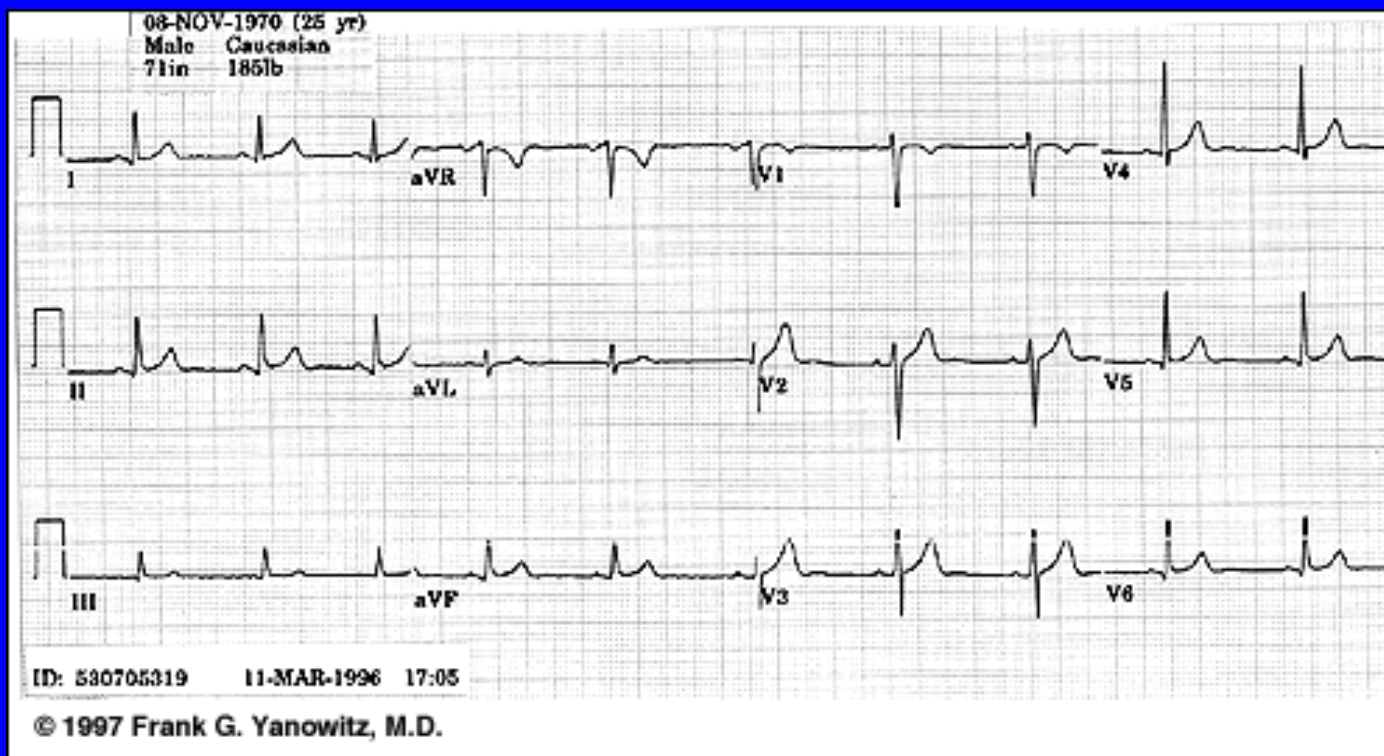
Long Q-T interval

Palpitations: Baseline ECG



Arrhythmogenic right ventricular dysplasia

Palpitations: Baseline ECG



Normal ECG

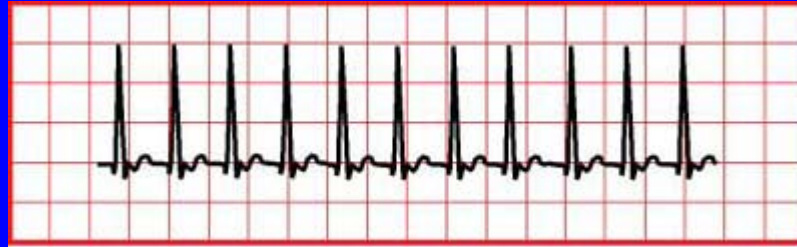
*This does not exclude arrhythmia as
the etiology of the palpitations!*

Palpitations: ECG with Symptoms



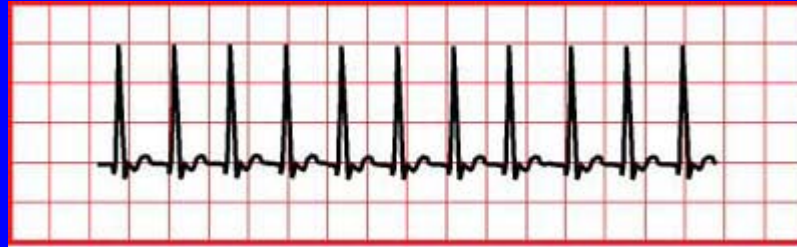
Narrow QRS Tachycardia

Palpitations: Narrow QRS Tachycardia



- Regular? No → AF, AT/AFL with variable block, MAT
- Visible P waves? No → AVNRT
- Atrial rate greater than ventricular rate? Yes → AT/AFL
- Short RP interval? AVNRT, AVRT, AT
- Long RP interval? AT, PJRT, Atypical AVNRT

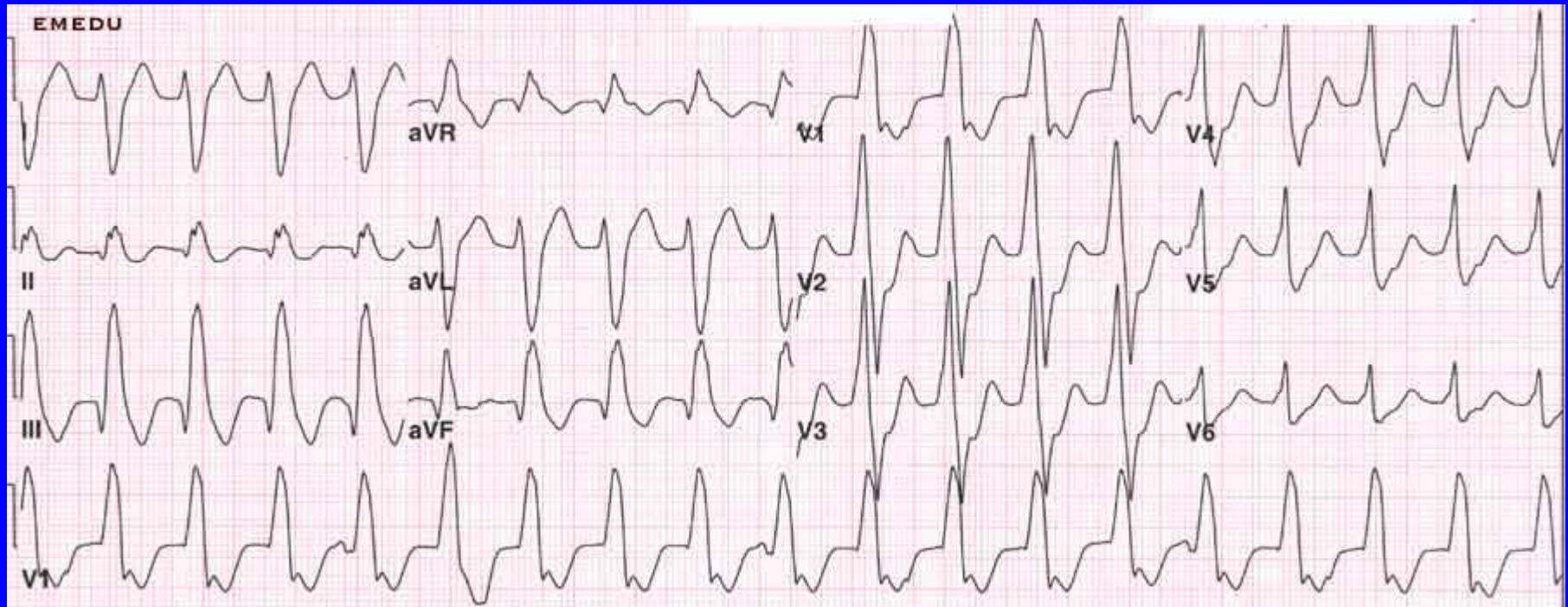
Palpitations: Narrow QRS Tachycardia



Take the “Adenosine Challenge”

- Sudden termination → AVNRT, AVRT, SNRT
- Persistent Atach, high-degree AV block → AFL, AT
- Gradual slowing, then reacceleration → ST, JT
- No change in rate → inadequate dose, VT

Palpitations: ECG with Symptoms



Wide QRS Tachycardia

Palpitations: Wide QRS Tachycardia



- Regular? No → AF/AFL/AT with BBB or AP
- Is QRS identical to that of SR?
 - Yes → SVT with BBB, antidromic AVRT
- A-V dissociation or fusion beats? Yes → VT
- QRS morphology? Bizarre → VT
- Previous MI or structural heart disease? Yes → VT

Palpitations: Workup

- 24 hour Holter monitor
- Continuous loop event recorder
- Echocardiogram
- Treadmill test (for sx's with or after exercise)
- E.P. testing

Palpitations: Management

- Reassurance
- AV node blocking meds
- Antiarrhythmic therapy
- Catheter ablation

