


Case 1: “What on earth am I going to do now?”

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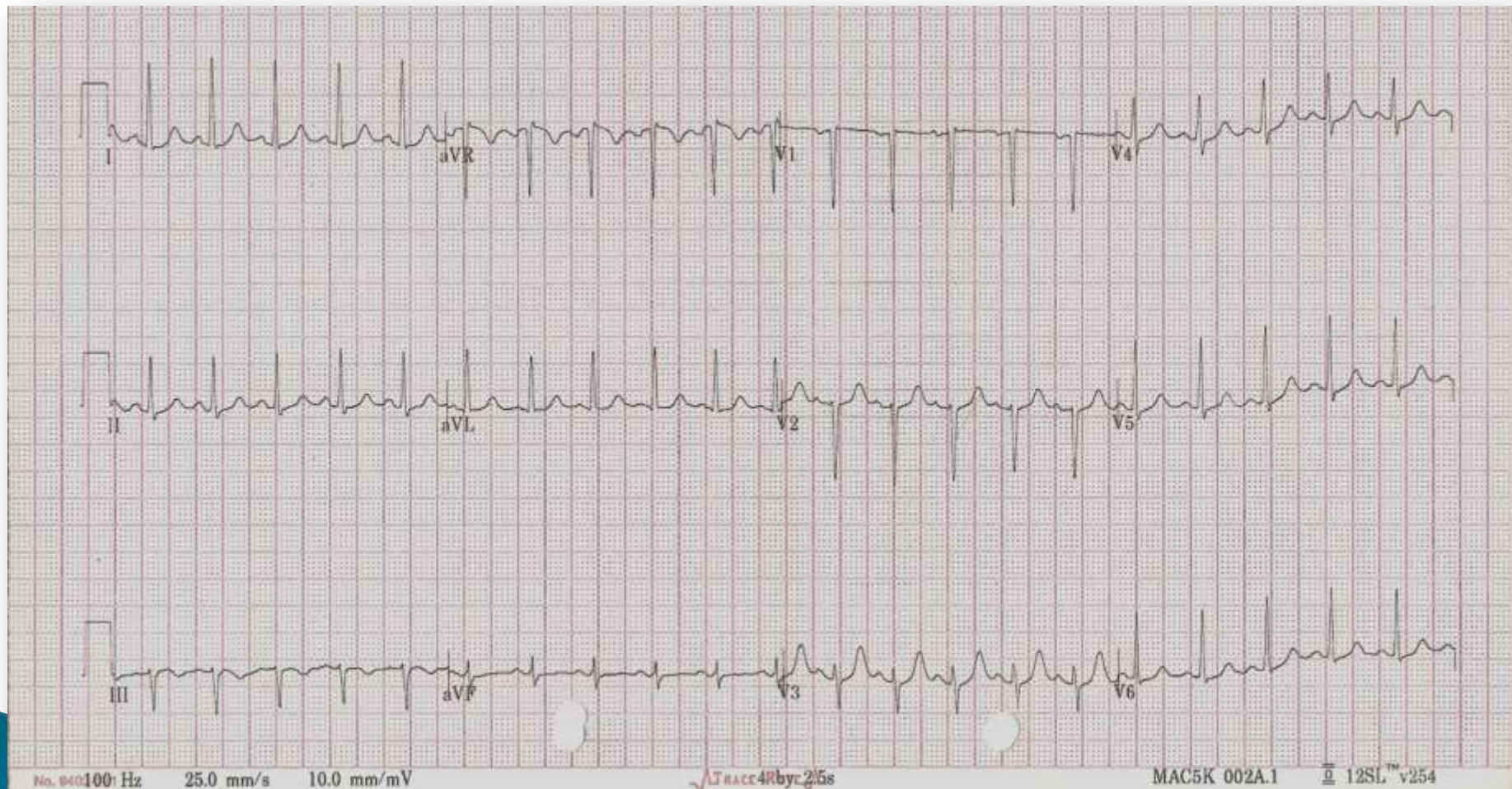
December 2005

- ▶ 35y.o. Female health care assistant
- ▶ Referral from secondary care Cardiologist
 - “Please see this lady with troublesome atrial tachycardia”
- ▶ Heart continually racing, fatigue, exertional chest pain
- ▶ PMH: Hypertension, pre-eclampsia
- ▶ DH: Atenolol 50mg od, perindopril 4mg od, amlodipine 10mg od

Exam / Investigations

- ▶ Resting heart rate 130/min
 - ▶ Otherwise normal exam
 - ▶ ECG
 - ▶ Holter
 - ▶ Echo: Normal
 - ▶ TFTs Normal
 - ▶ Urinary catecholamines: Normal (x several)
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ECG



No. 040100 Hz 25.0 mm/s 10.0 mm/mV

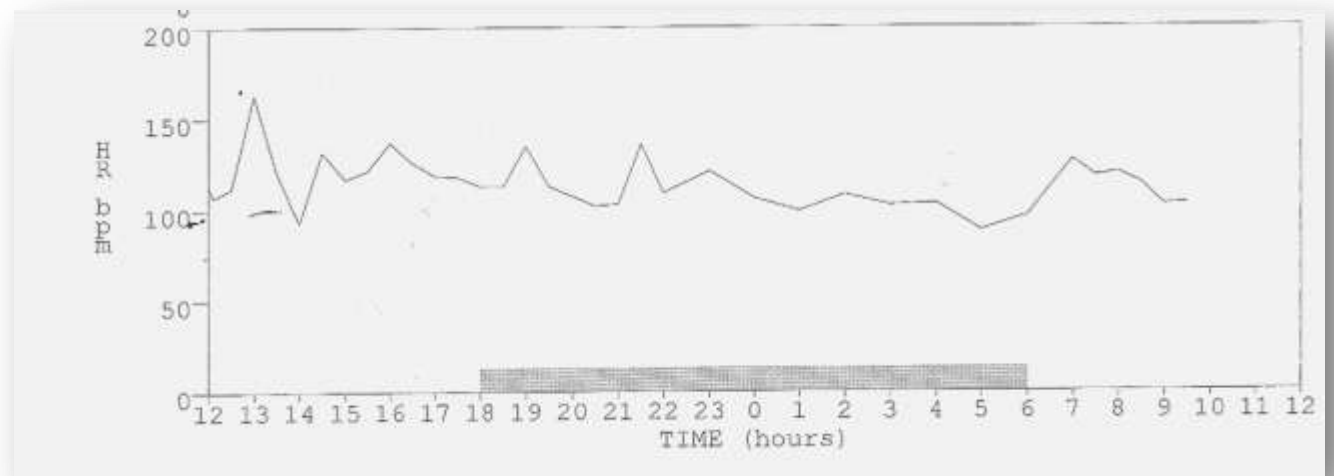
Trace 4R by 2.5s

MAC5K 002A.1

12SL™ v254


Holter

- ▶ Day time heart rate 110–150, mean 130.
- ▶ Night time slowed to 80/min.
- ▶ Gradual onset /offset. No obvious change in P-wave




1 8 / 1 / 2006: EP Study

- ▶ AH: 52ms, HV: 41ms
 - ▶ Persistent tachycardia 390ms
 - ▶ VAAV entrainment from V
 - ▶ High right atrium leading
 - ▶ Slowed with iv esmolol

 - ▶ Diagnosis: Inappropriate Sinus Tachycardia
 - ▶ Inpatient response to diltiazem and metoprolol good
- 

2006

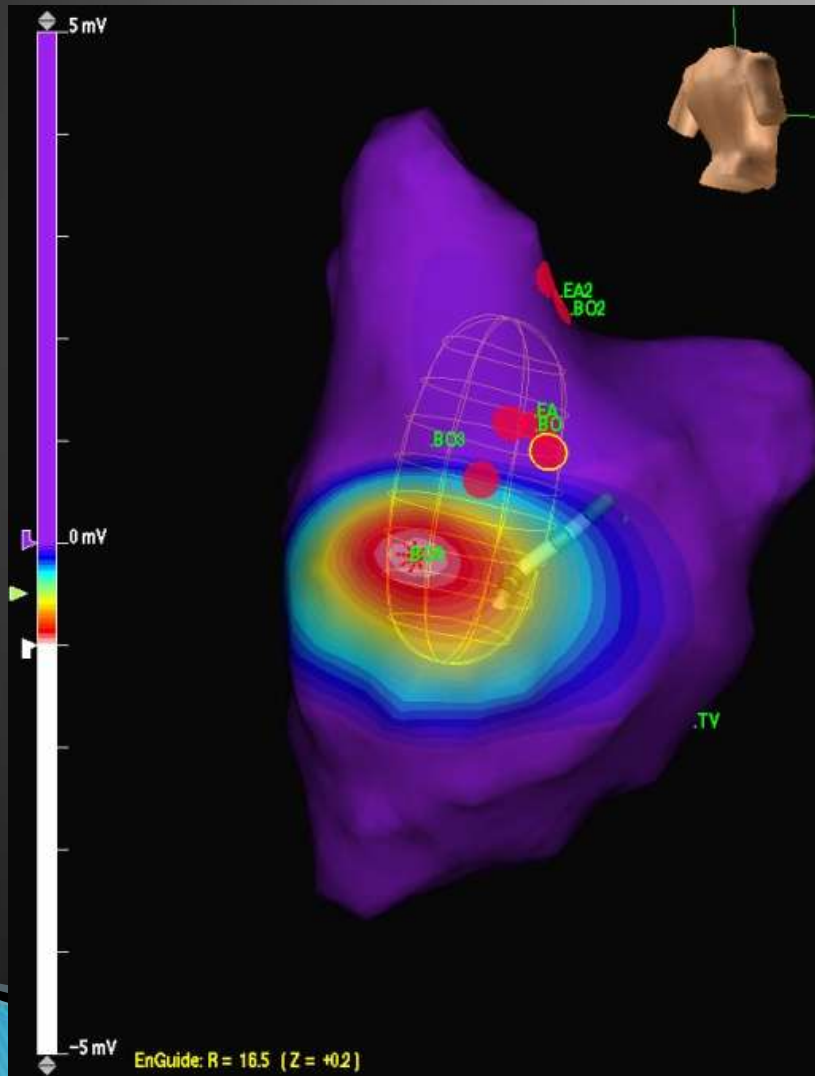
- ▶ Multiple admissions with palpitations and dyspnoea
 - ▶ Transient improvement with diltiazem, metoprolol and ivabradine
 - ▶ Failed to tolerate ivabradine
 - ▶ Further palpitations and admissions

 - ▶ What next?
- 

Ablation: Jan 2008

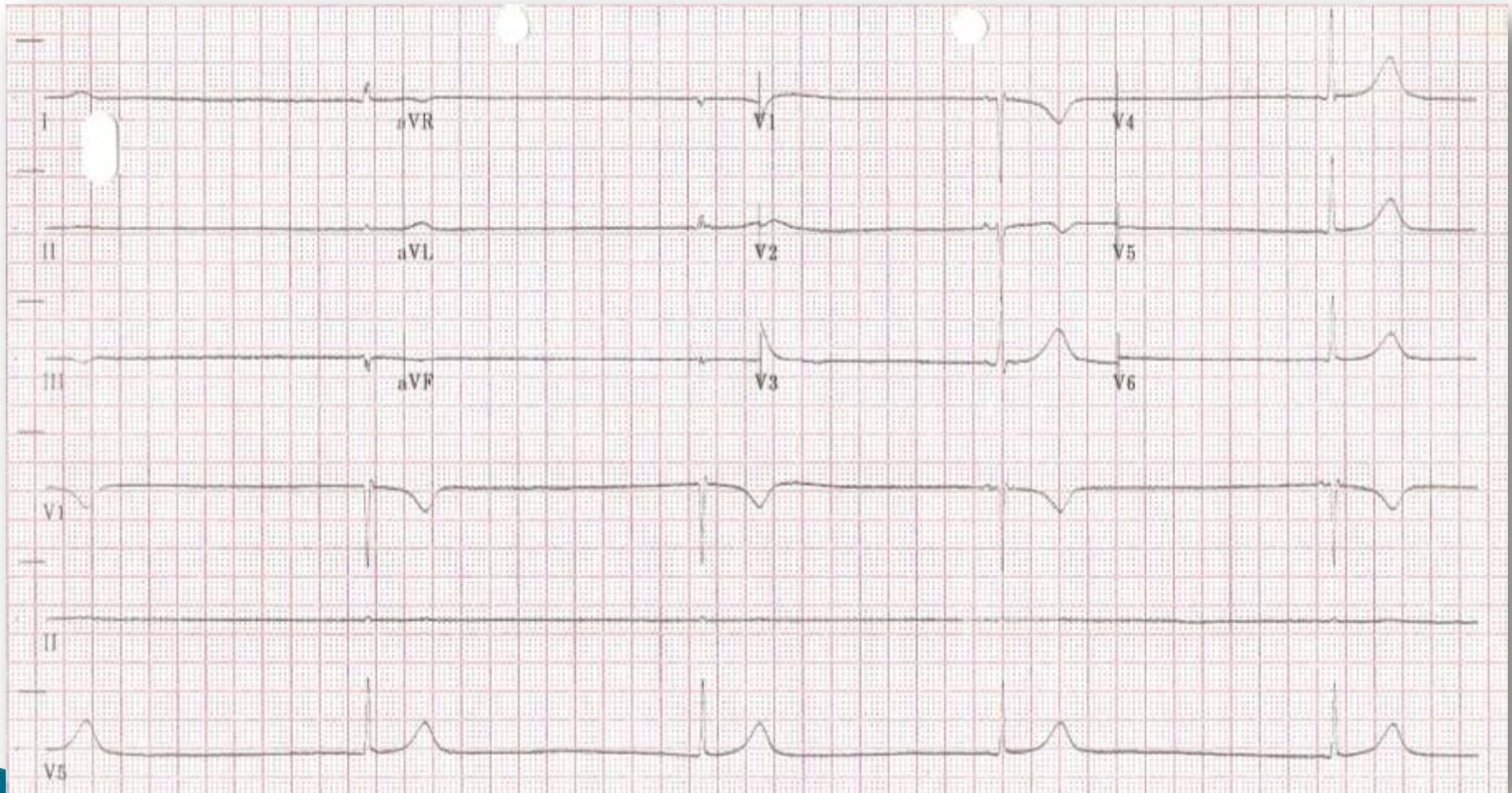


Ablation Jan 2008




- ▶ Resting rate slowed to 70 from 130
- ▶ Acceleration with isoprenaline attenuated
- ▶ Caudal migration of early activation

Post op



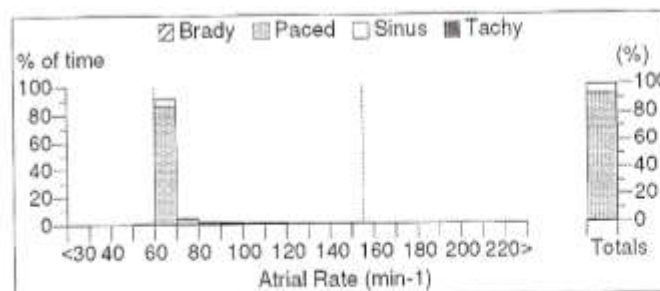
May 2008

- ▶ Palpitations recur
 - ▶ Pacemaker diagnostics confirm recurrent high atrial rates
 - ▶ Repeat ablation

 - ▶ Sinus rates slowed, accelerated junctional rhythm took over at similar rate
- 

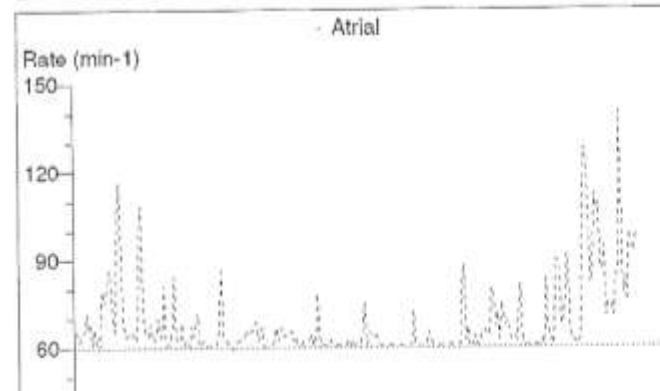
2008 – 2010

- ▶ Eventually settled
- ▶ Metoprolol 50mg tds
- ▶ ‘Best two years for ages’



Atrial Rate Histogram

Mode	AAIR
Lower Rate	60 min ⁻¹
Night Lower Rate	60 min ⁻¹
Collection Period	16 days



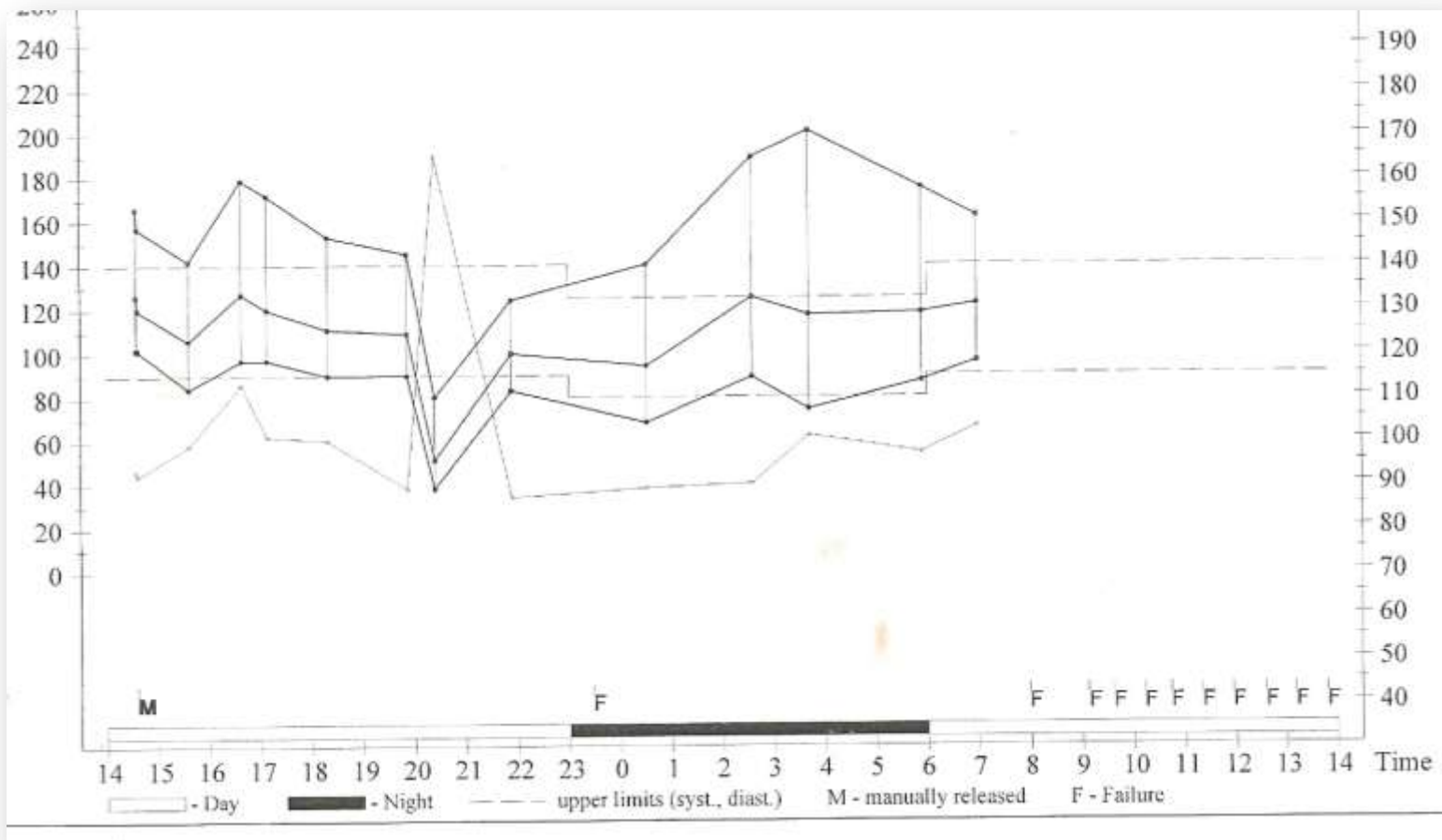
24-Hour Holter

Mode	AAIR
Lower Rate	60 min ⁻¹
Night Lower Rate	60 min ⁻¹
Collection Period	1.0 day

2010

- ▶ Chest pain: Normal coronary angiogram
- ▶ Palpitations return with a vengeance
- ▶ May 2010: Labile BP
- ▶ June 2010: Intermittent syncope
 - Lying or standing
 - Never witnessed
 - Tilt test normal

Ambulatory BP Monitor

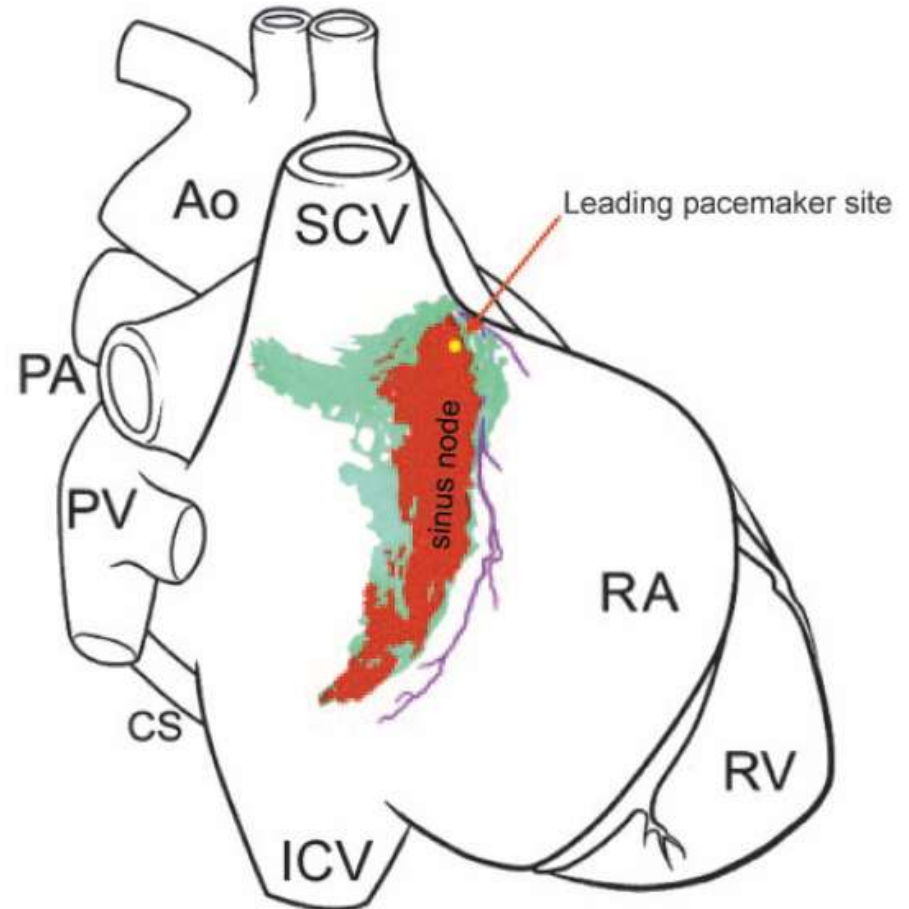


August 2010

- ▶ More bad than good days
- ▶ “Can I have another ablation”...

Messages (1)

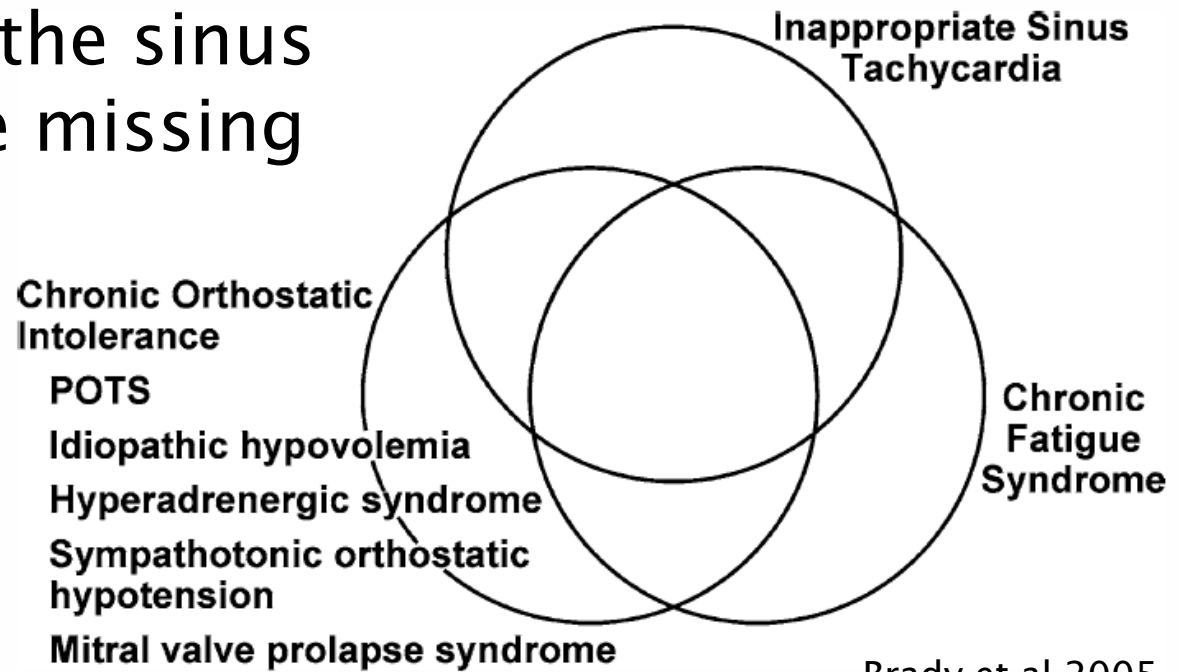
- ▶ The sinus node is bigger than you think
- ▶ Sinus node ablation doesn't work well
- ▶ But then neither does anything else



Dobrzynski et al
Circulation 2007 115:1921

Messages (2)

- ▶ IST is probably a systemic dysautonomia
- ▶ To focus on the sinus node may be missing the point



Brady et al 2005
PACE 28:1112