

IX CONGRESSO NAZIONALE ECOCARDIOCHIRURGIA 2017

28 - 29 MARZO 2017 MILANO, 27 - 28 - 29 MARZO 2017 MILANO, 27 - 28 - 29 MARZO 2017 MILANO, 27 - 28 - 29 MARZO 2017 MILANO, 27 - 28 - 29 MARZO 2017 MILANO, 27 - 28 - 29 MARZO 2017 MILANO, 27 - 28 - 29 MARZO 2017 MILANO, 27 - 28 - 29 MARZO 2017
MILANO, 27 - 28 - 29 MARZO 2017

DIRETTORI
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**COORDINATORI
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CORRADO LETTIERI

**PROGRAMMA
FINALE**

**Centro Congressi
Palazzo delle Stelline
Corso Magenta, 61
20123 Milano**

Non è un paese per vecchi. Complessi larghi in bambini stretti. Le urgenze aritmiche in età pediatrica: inquadramento diagnostico e terapeutico

Narrazioni parentali

"Erano più spaventati di noi"

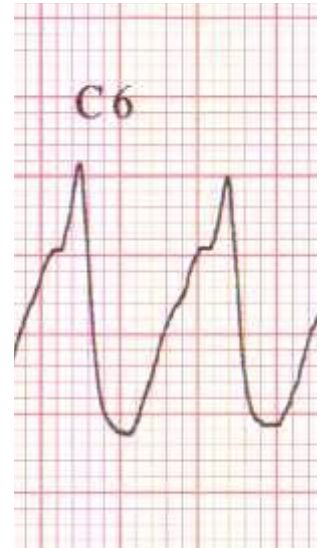
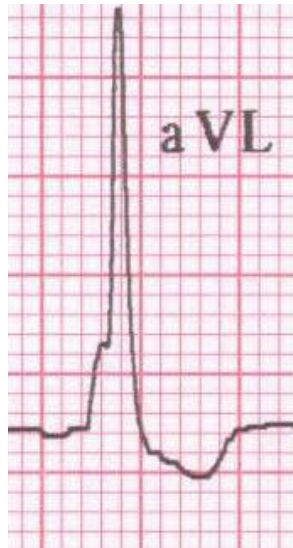
"L'infermiera piangeva"

"Il dottore è corso via"

*"Arrivavano medici e
nessuno decideva"*

*"Telefonavano al
primario"*

Fat and fatal ?



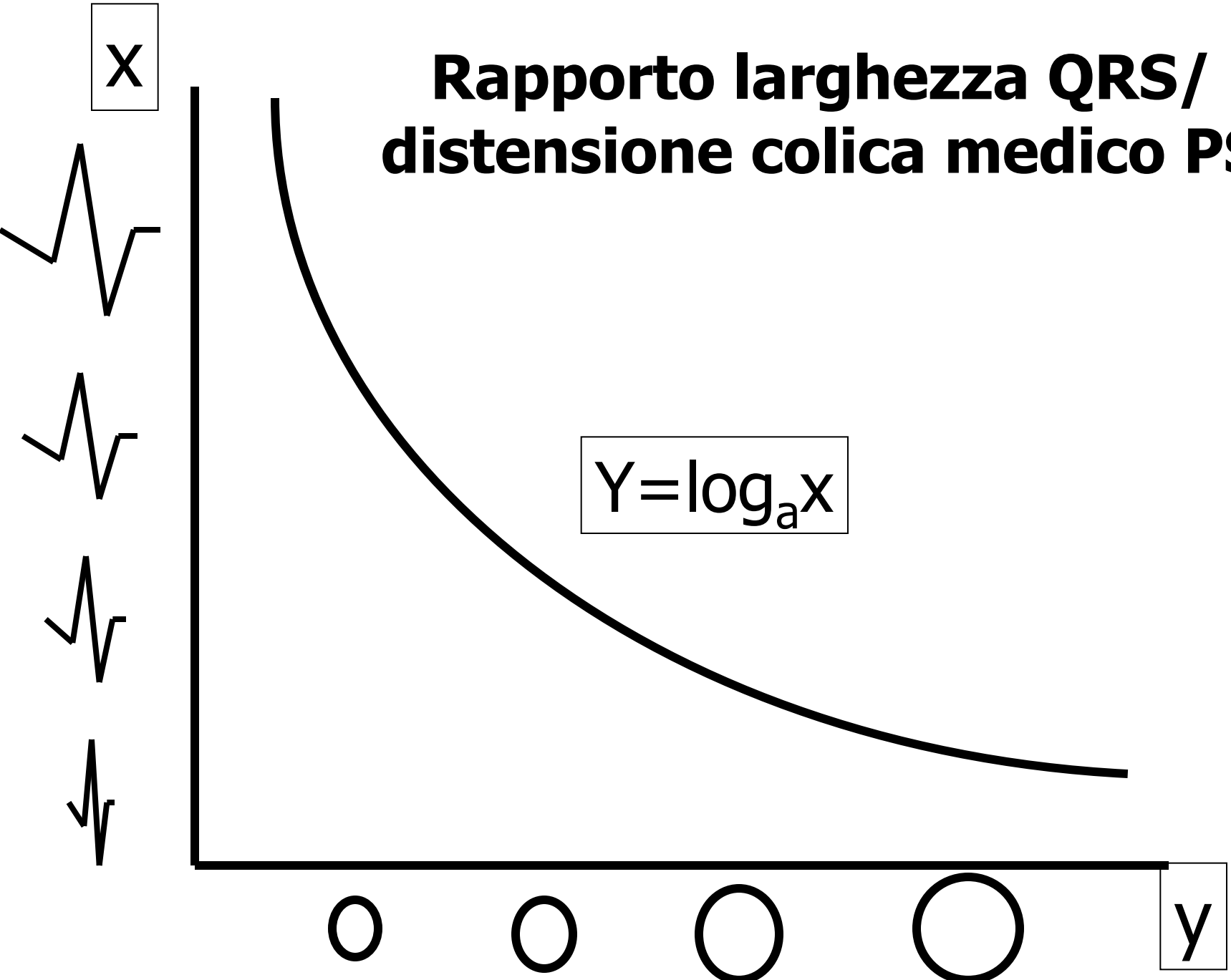
TV o TSV ?

WPW

QT lungo

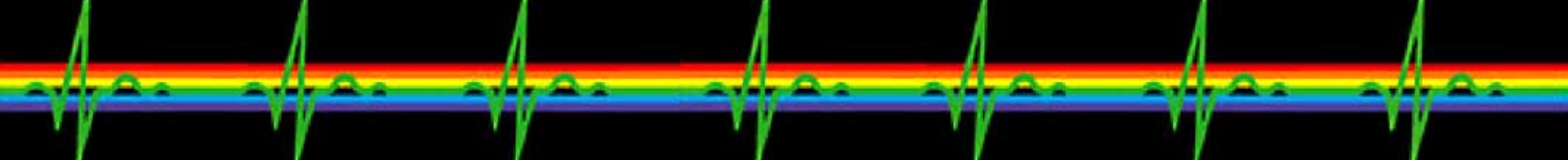
A.A.

Rapporto larghezza QRS/ distensione colica medico PS



Ridare la vita o creare mostri ?

Trasferimento di cervello o di *schwanzstuck* ?



Calma, Dignità e Classe





TERAPIA

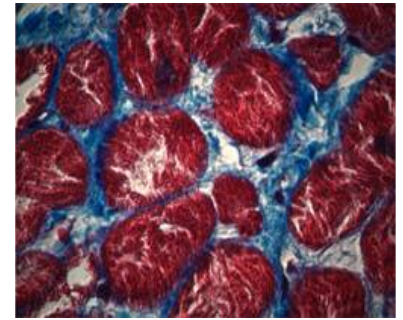
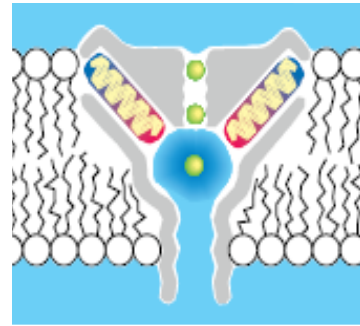
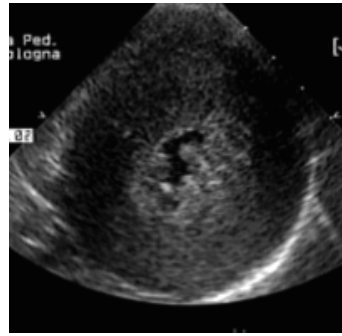
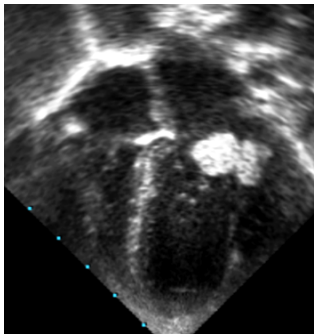
**Segni
Sintomi**



**DIA-
gnosi**

Malattia

**Cardiologi
Pediatri**



Substrato

Trigger

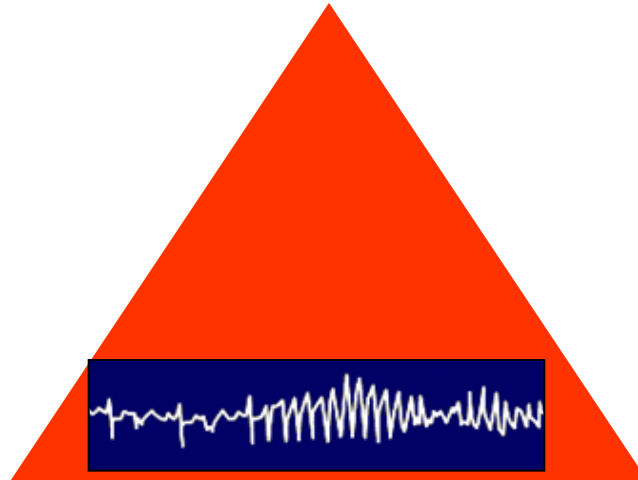
BESV

BEV

PM

Manipolaz cateteri

Volume Δ



Modulatori

Inotropi

Febbre

Autonomiche Δ

Ischemia

Elettroliti Δ

Ormoni

Tossine

URGENZE aritmiche

Palesi (TSV , JET , TV rapida)

Latenti (BAV, bradicardie, QT
lungo)

Iatrogene - Metaboliche (farmaci,
ipotermia)

Presupposti riduttivi

Tachi > Bradi

TPSV > TV

Rientro > Automatiche

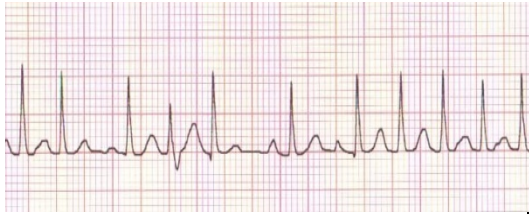
Parossistiche > Incessanti

Adenosina + > Adenosina -

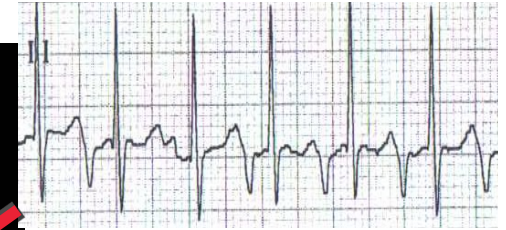
DC shock+ > DC -

TPSV RIENTRO

TPSV AUTOMA



PJRT



JET



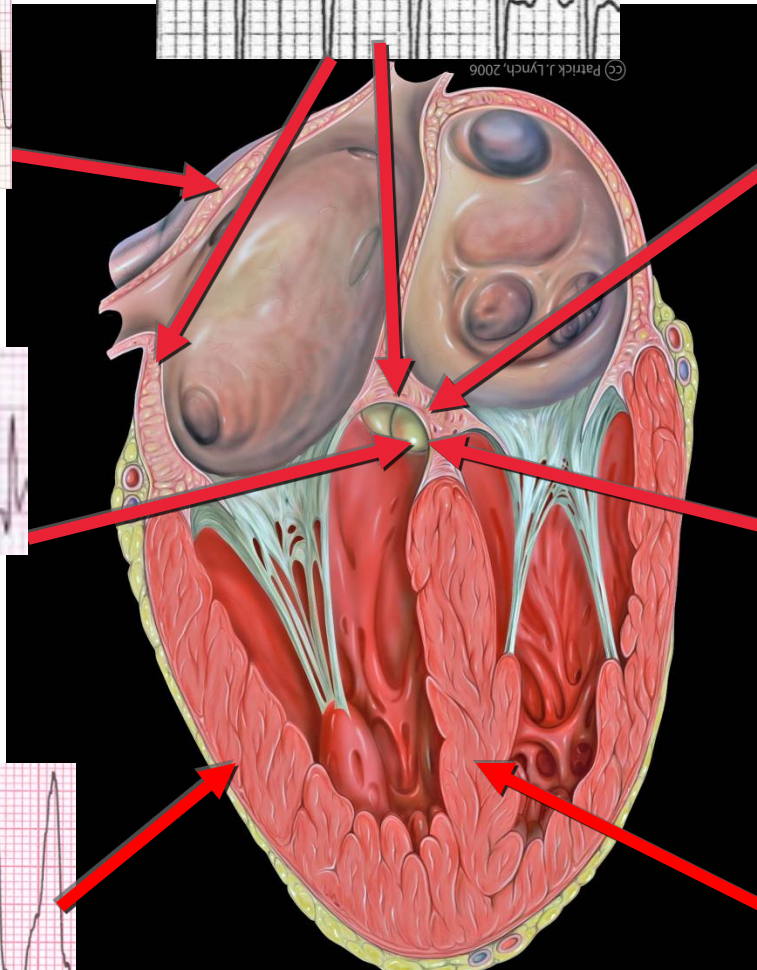
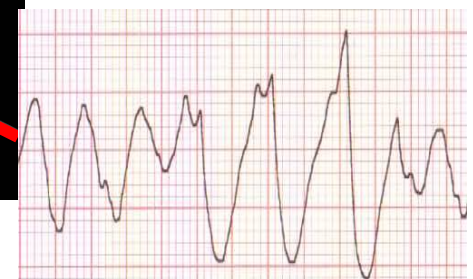
BAV



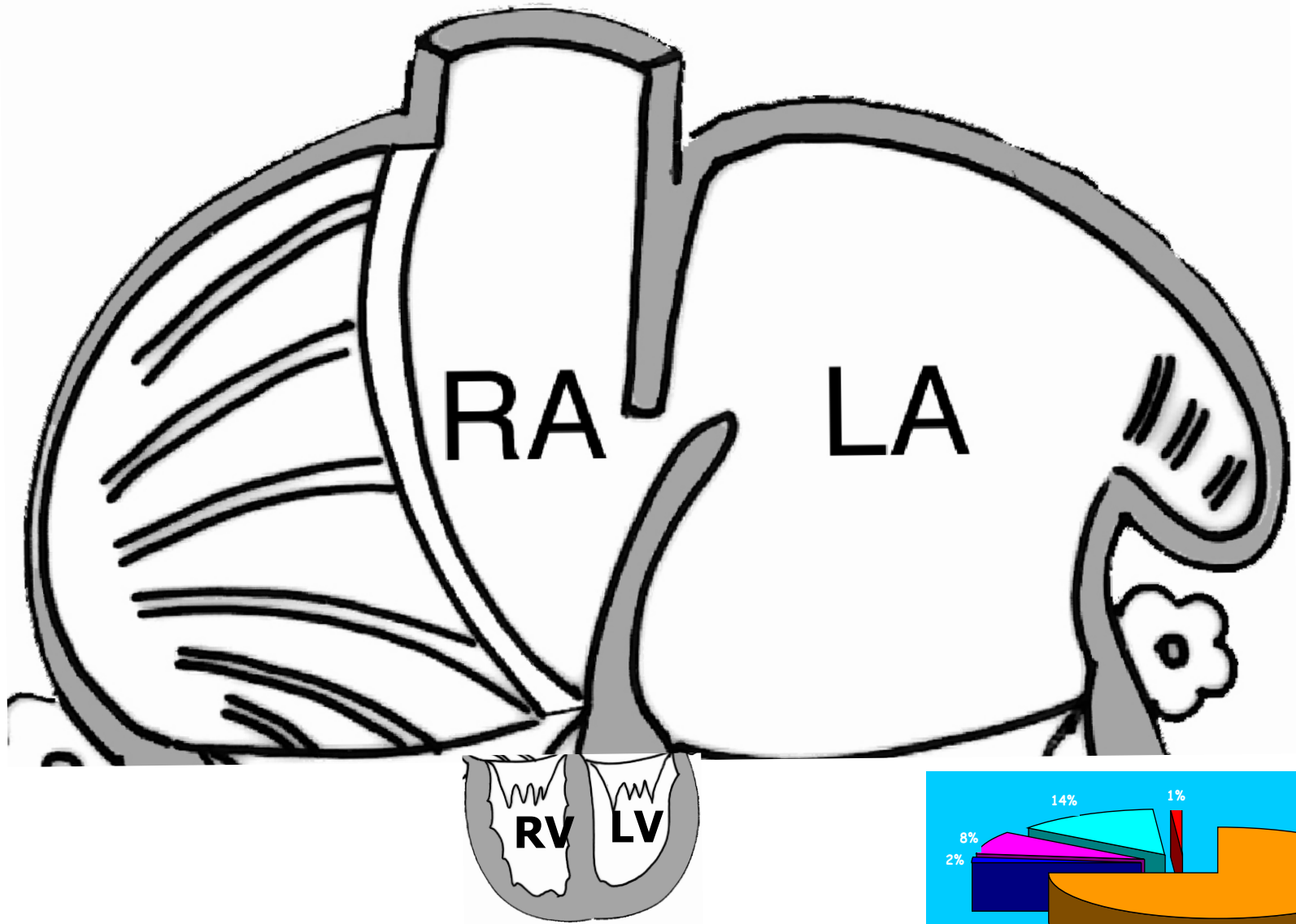
TV



IATROGENE



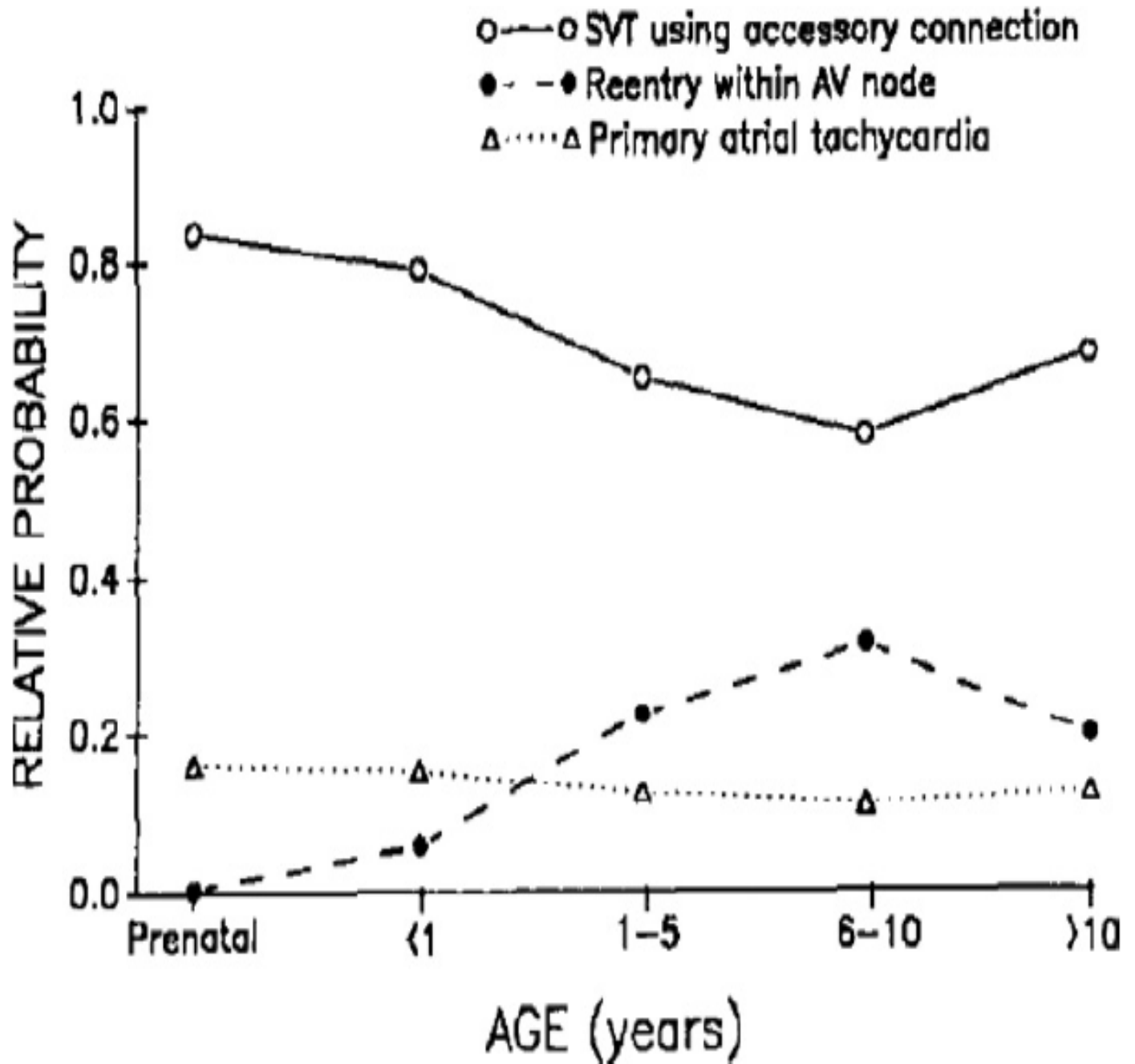
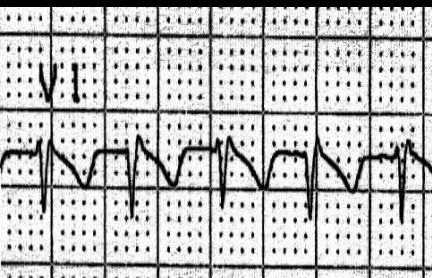
Omuncolo aritmico



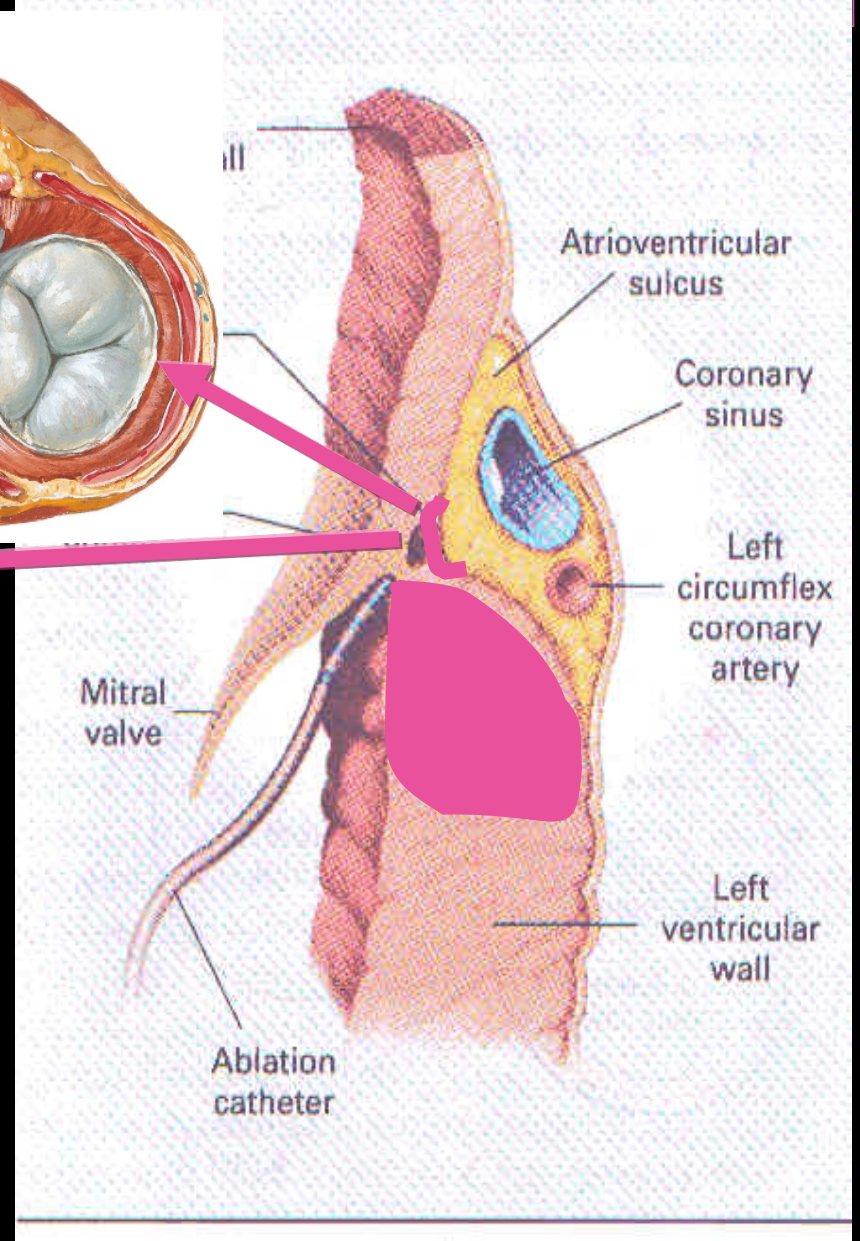
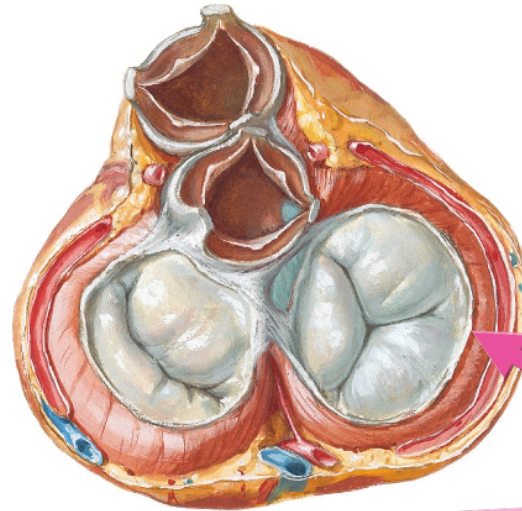
AVRT



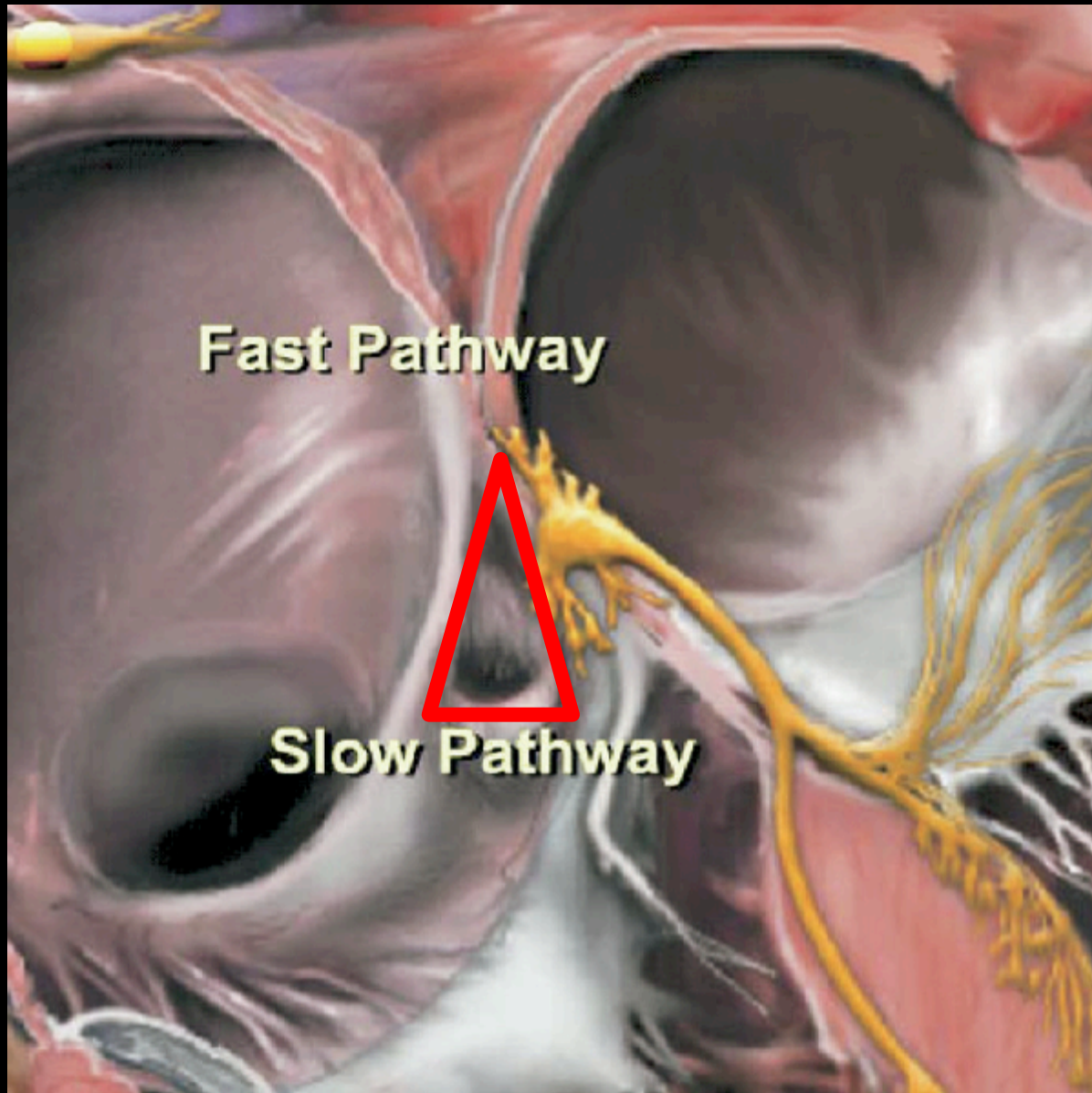
AVNRT



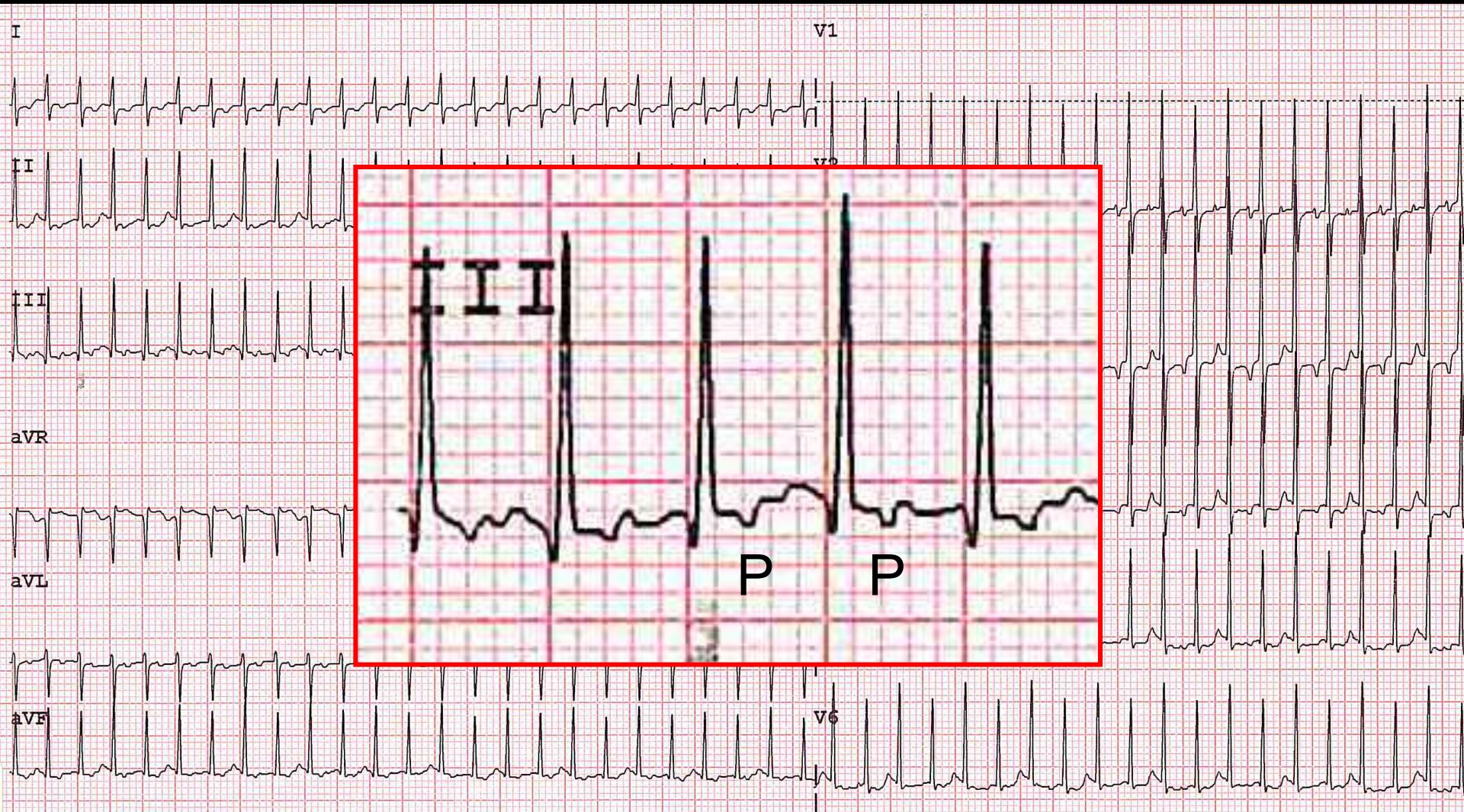
Δ elta !Una parentesi rosa tra le parole t' ablo



Nodo AV - triangolo di Koch

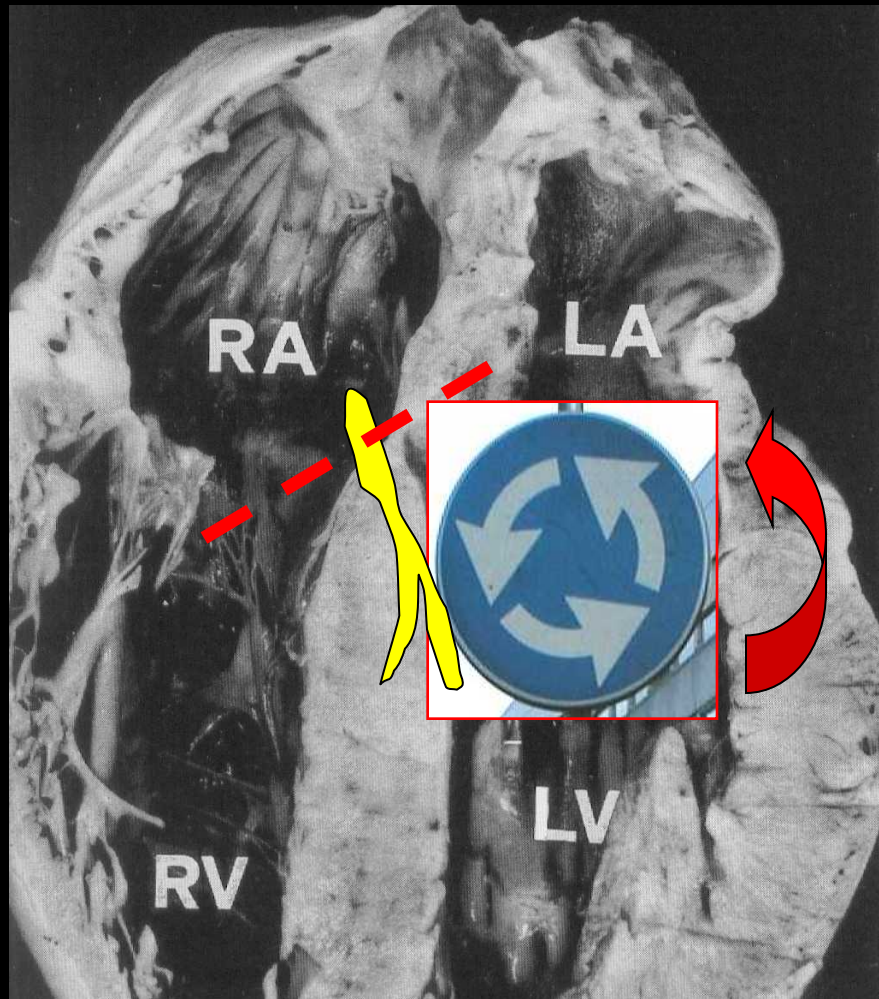


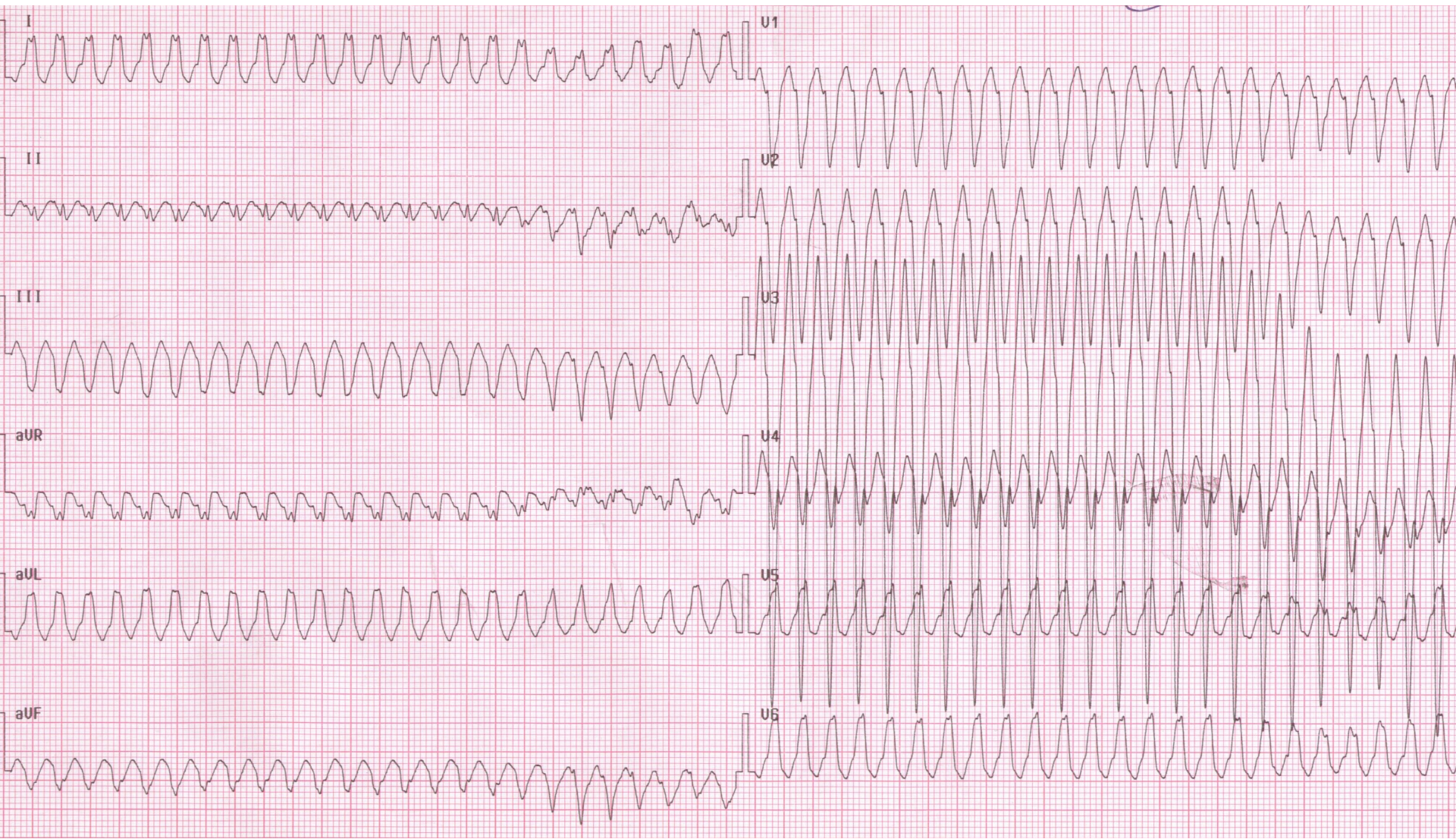
Rientro Neonato , 300 bpm



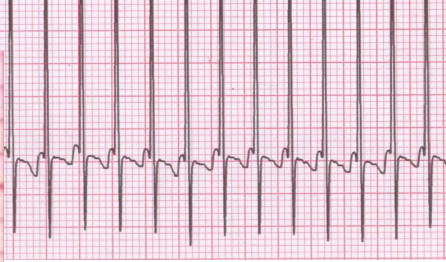
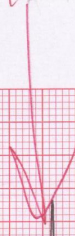
Adenosina o diagnosina

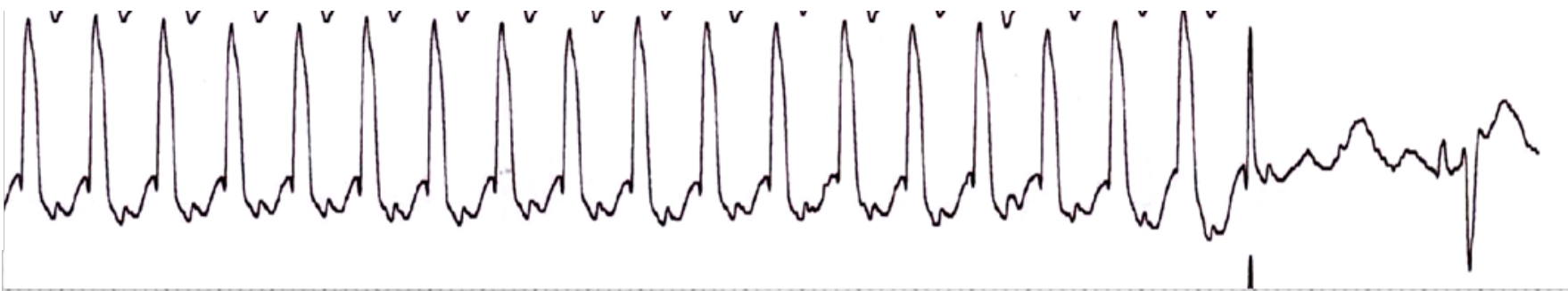
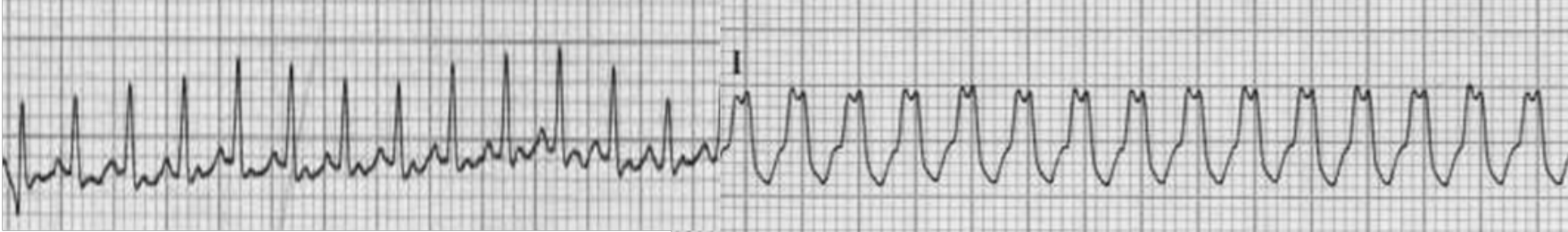
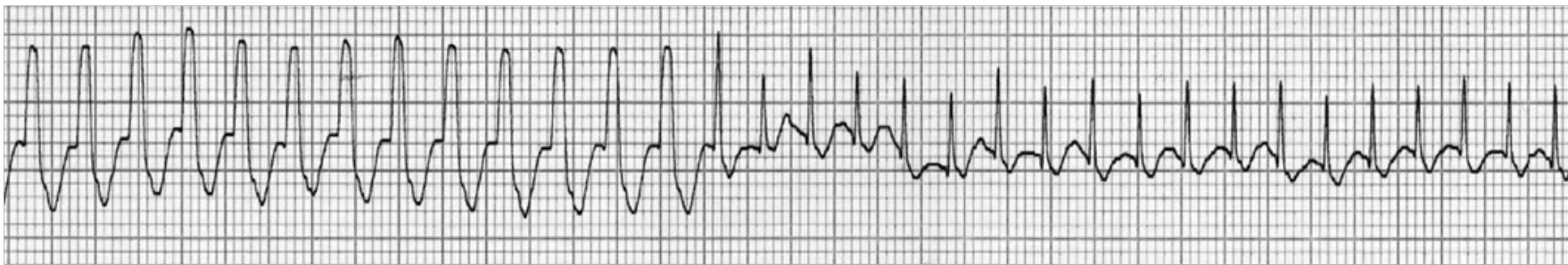
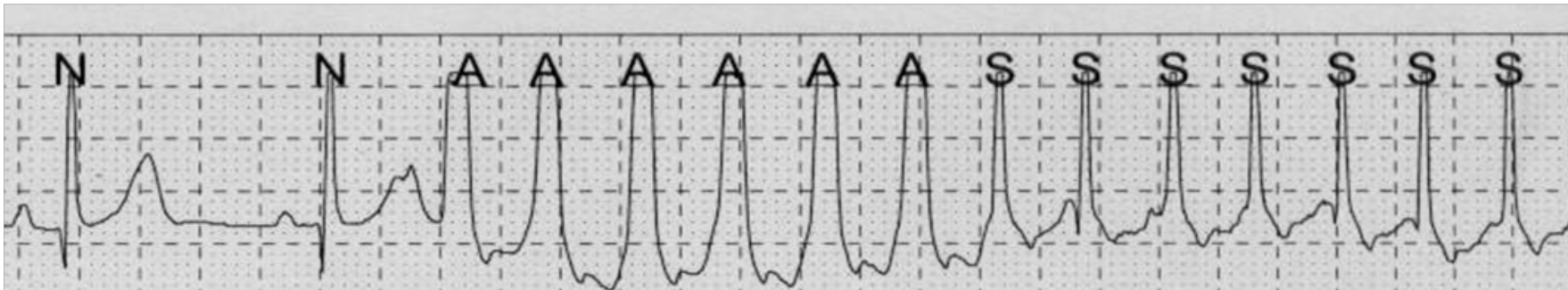
Adenosina
causa un blocco
chimico di pochi
secondi

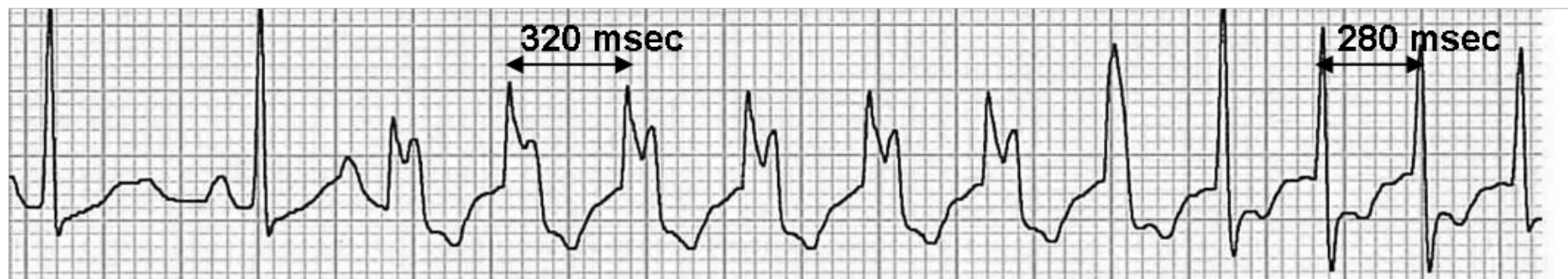




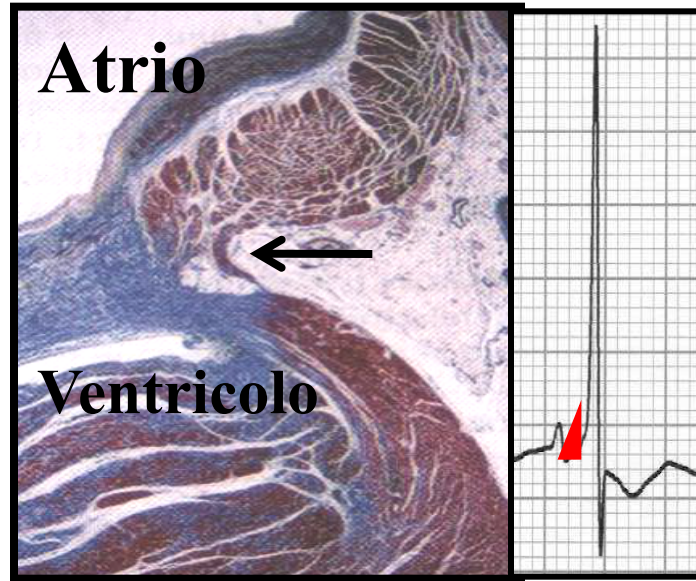
ADENOSINA



A**B****C****D**

E**F****G**

Why When Where What Who P W ?



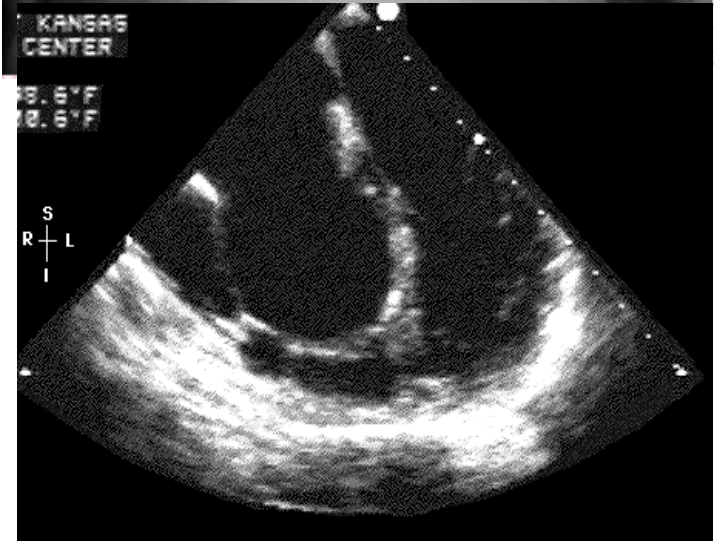
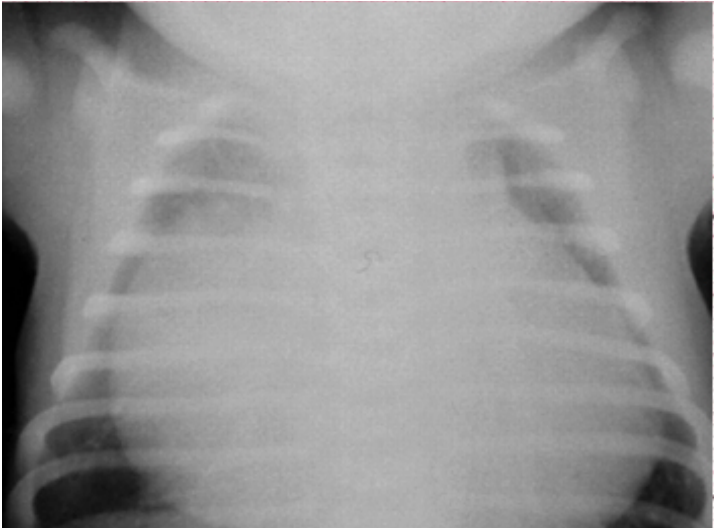
AVRT

FA Preeccitata



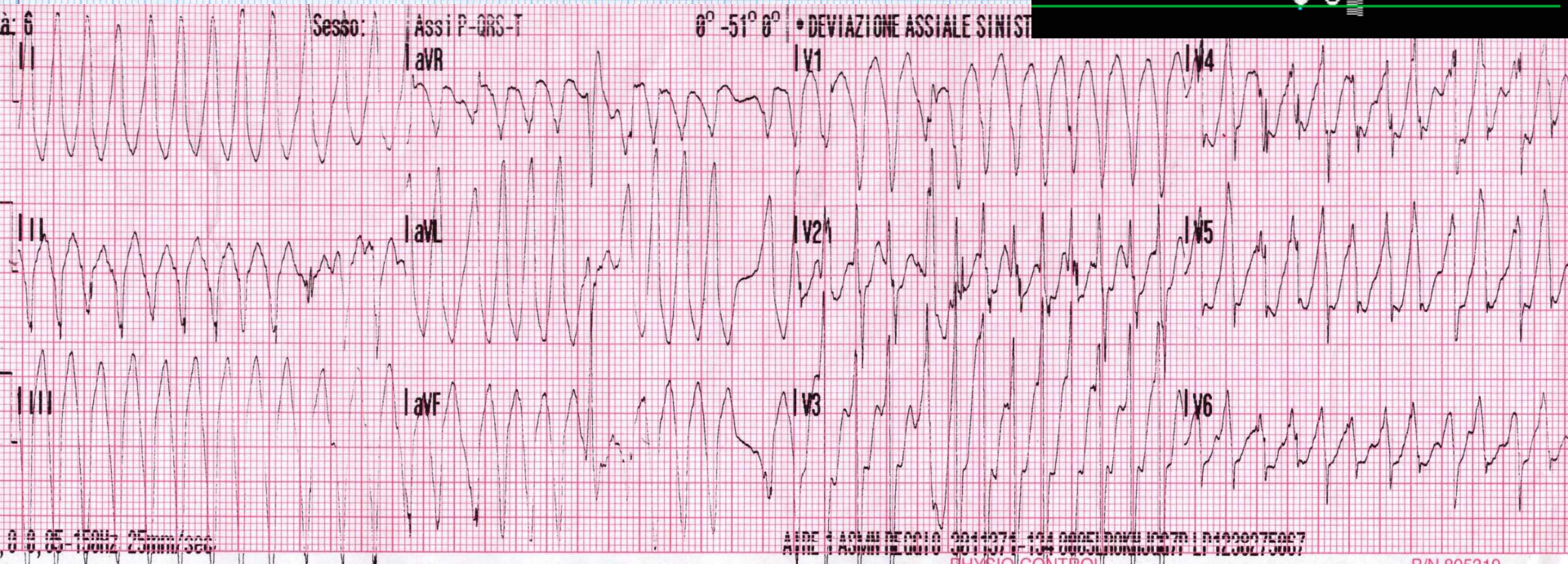
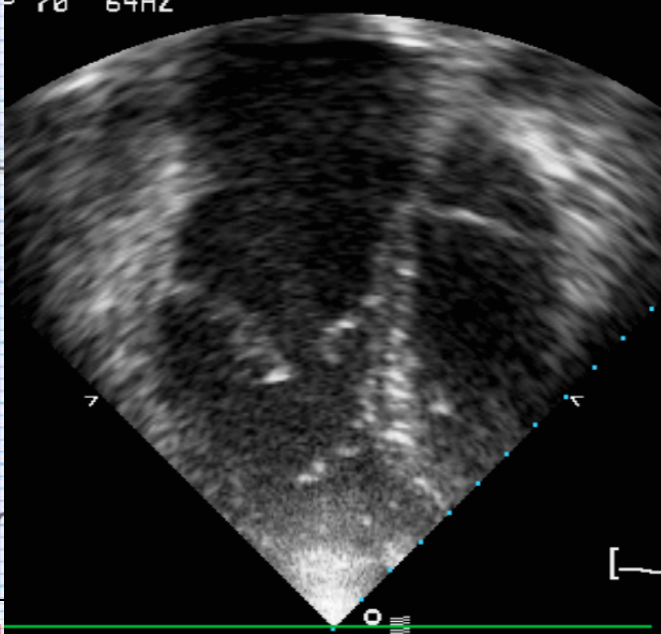
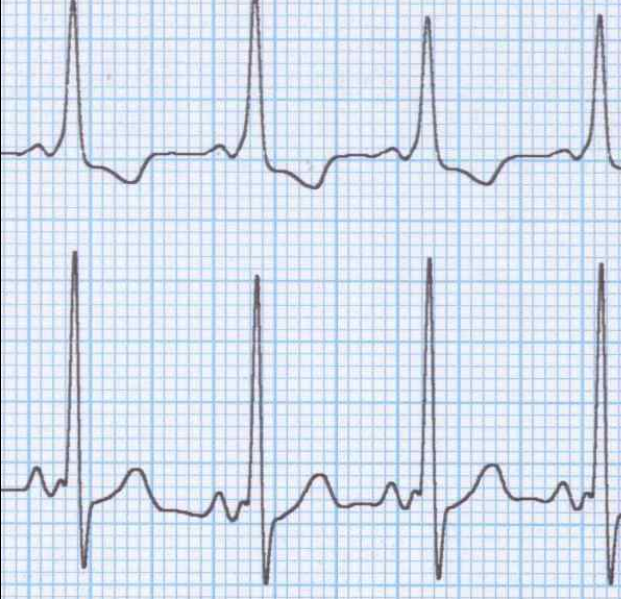
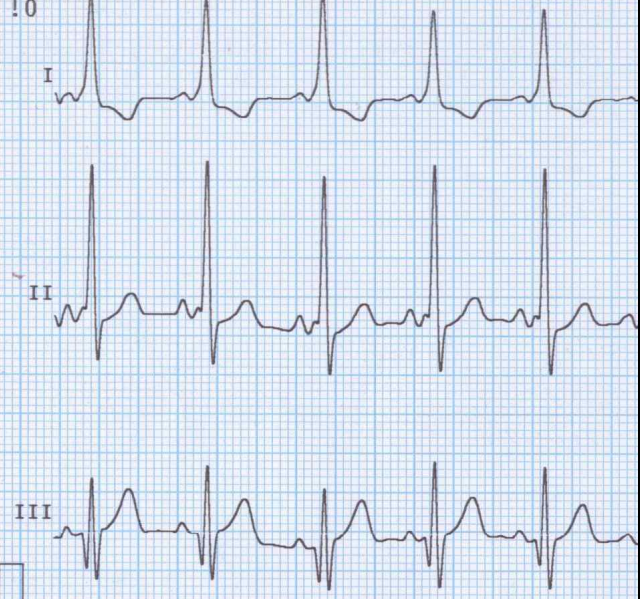
Ebstein

Neonato



Adulto





Sesso: Assi P-QRS-T $0^{\circ} -51^{\circ} 0^{\circ}$ • DEVIAZIONE ASSIALE SINIST

0.05 1500 25mm/sec
0.05 1500 25mm/sec

ASDE 1 ACHM RE0010 0044075 404 00001 D0V8 10070 I D400047E007
AHL 1 ACHM RE0010 0044075 404 00001 D0V8 10070 I D400047E007

ELVIS (CONTROL)

D/N 005910

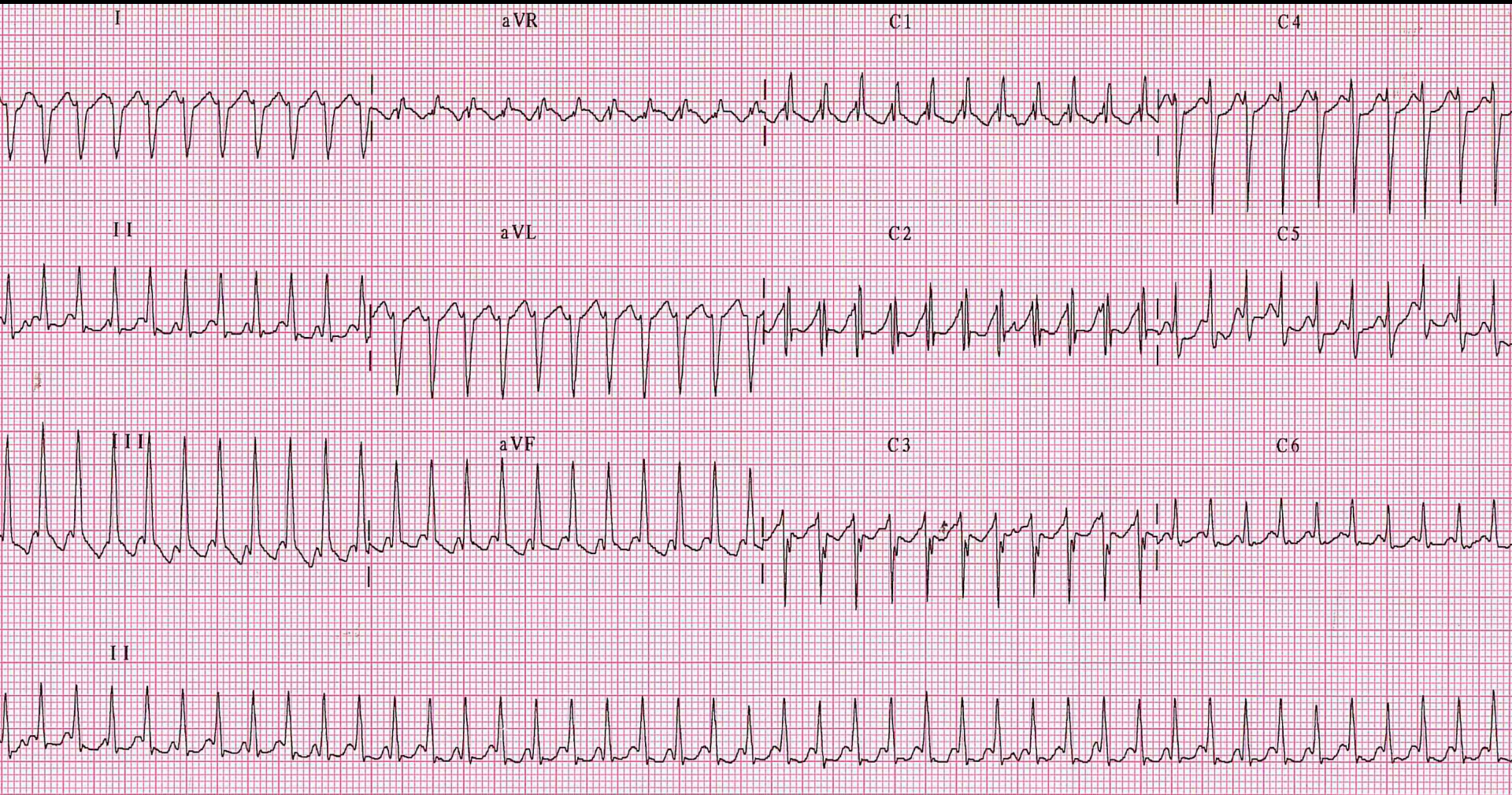
Cause di TV

Congenital heart diseases	Toxic
Tetralogy of Fallot Mustard/Senning Ebstein anomaly GUCH Mitral valve prolapse	Drugs Digitalis Antiarrhythmics Cocaine- street drugs
Cardiomyopathies	Ischemic
HCM ARVC DCM Neuromuscular diseases	Kawasaki disease Coronary artery anomalies Post-surgical
Primary electrical diseases	Cancer
LQTS-SQTS Brugada syndrome CPVT	Rhabdomyomas Hamartomas Fibroid cancer
Infectious	Metabolic
Myocarditis Rheumatic fever	Hypoxia Acidosis Electrolyte imbalances

ARVC, arrhythmogenic right ventricular cardiomyopathy; DCM, dilated cardiomyopathy;
 HCM, hypertrophic cardiomyopathy; CPVT, catecholaminergic polymorphic ventricular tachycardia;
 GUCH= grown up congenital heart disease ; LQTS, long QT syndrome; SQTS, short QT syndrome.

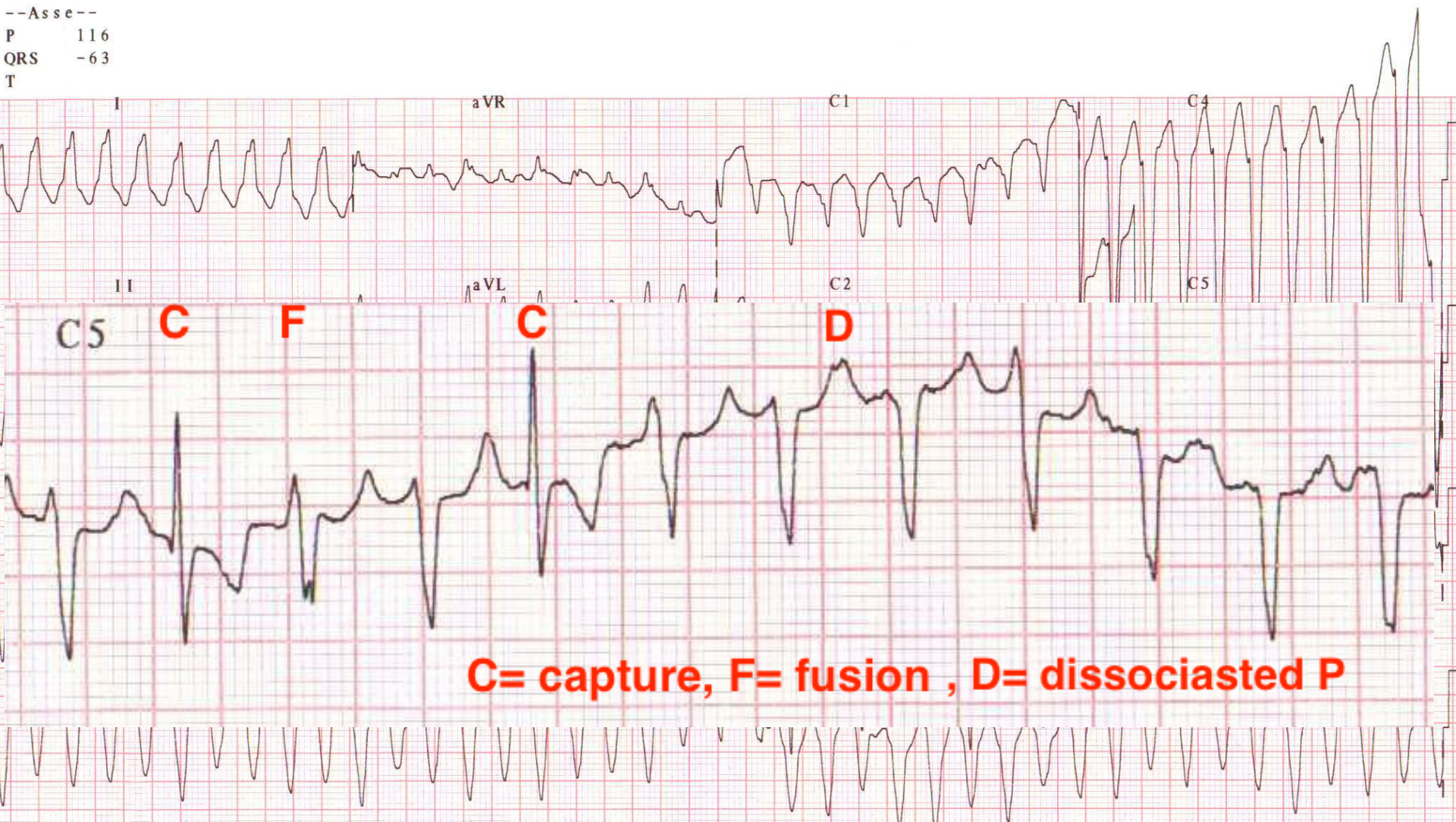
TV, DISSOCIAZIONE AV

Complessi larghi , ma non troppo



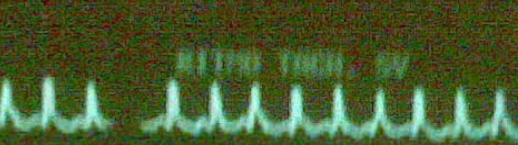
1 anno, TV idiopatica

--Asse--
P 116
QRS -63
T



C= capture, F= fusion , D= dissociated P

ALLARMI SOSPESTI



FC 260 PULSE 125

NBP 83/46 (58)

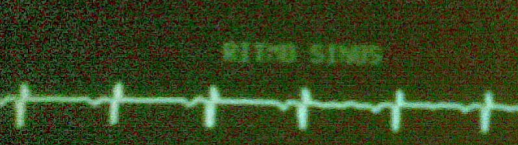


SpO2 100



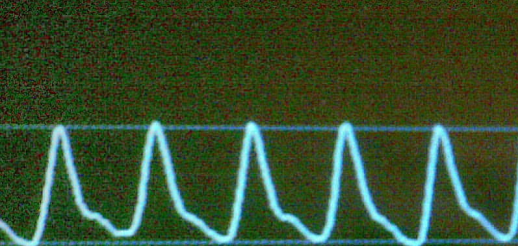
RESP. 61

ALLARMI SOSPESTI

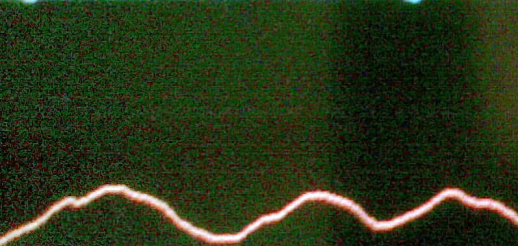


FC 102 PULSE 102

NBP 73/41 (53)

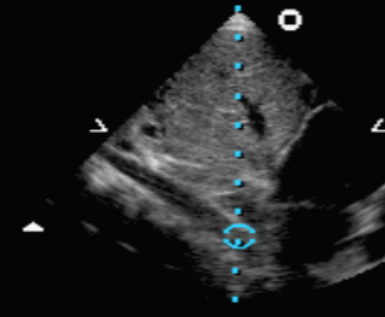


SpO2 99



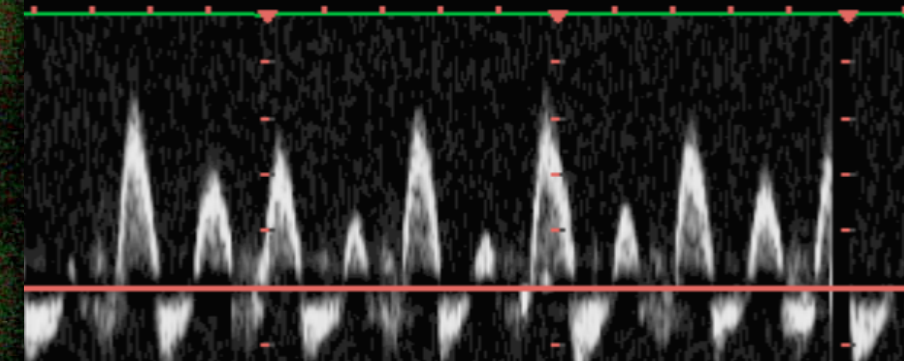
RESP. 42

L.3 GUAD 50 COMP 70
ped. 10CM
BO 2/0/D/S3

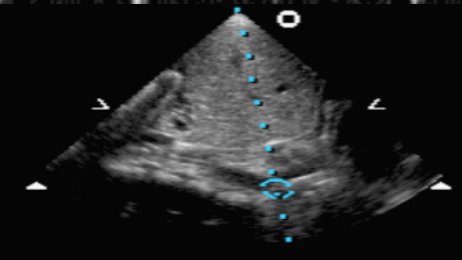


08 MAG 12
20:45:50

2.9MHZ

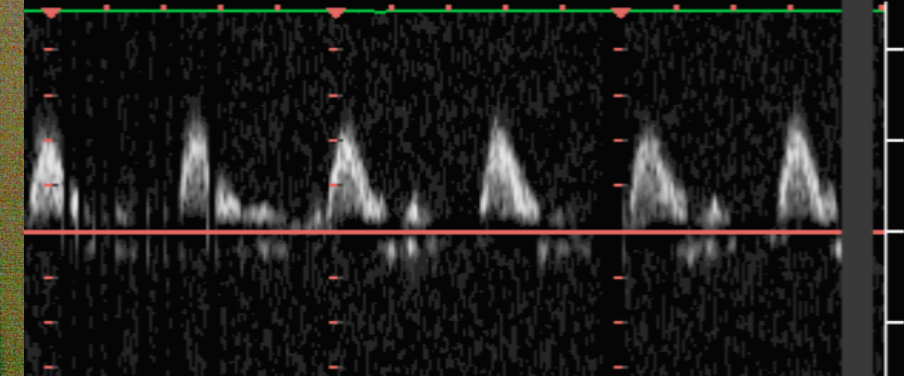


GUAD 50 COMP 70
ped. 10CM
BO 2/0/D/S3



08 MAG 12
20:47:10

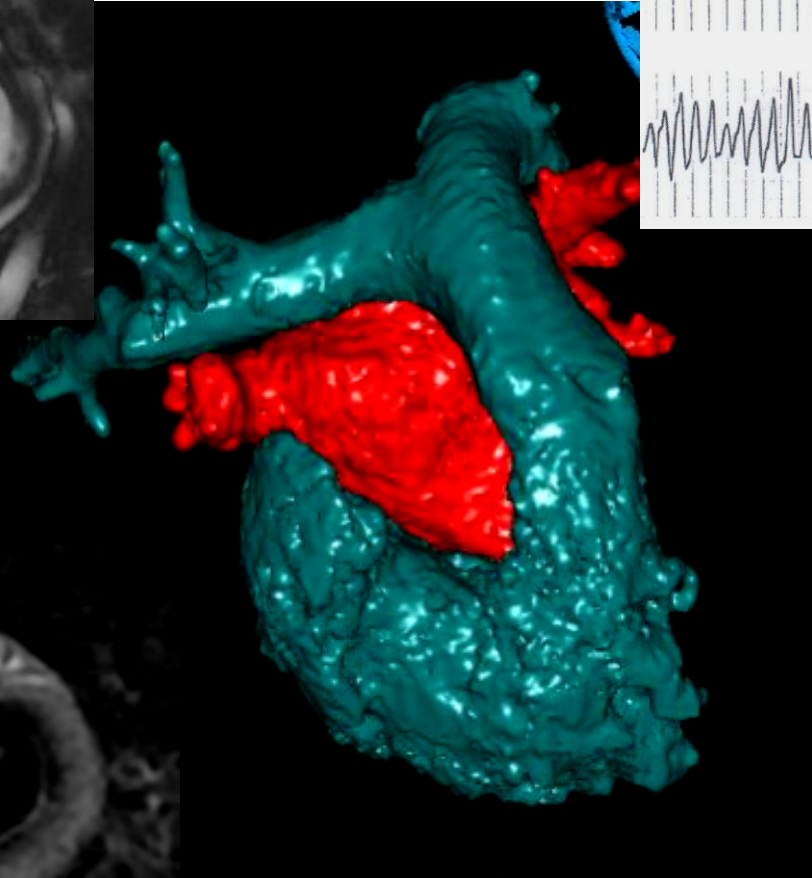
2.9MHZ



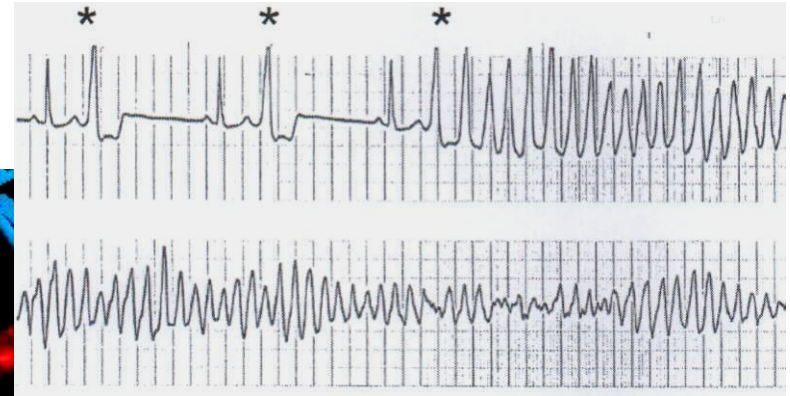
Fallot



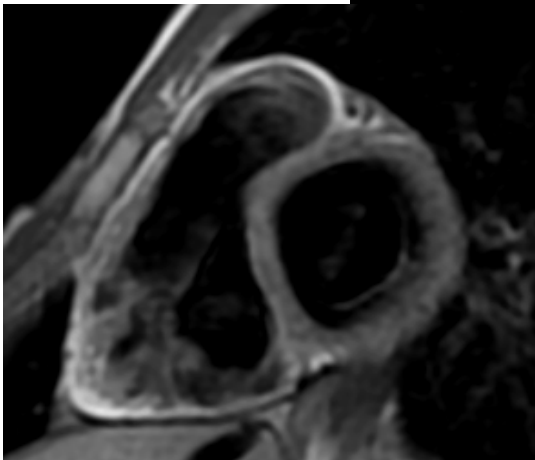
RVOT



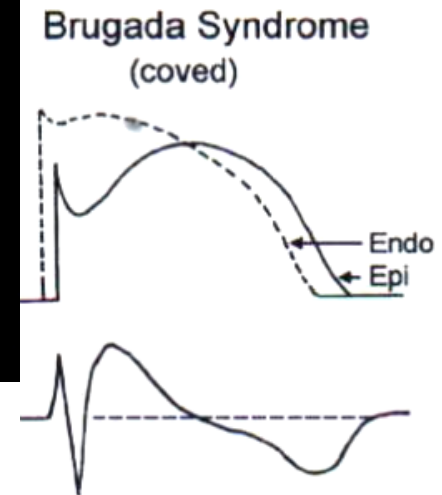
RVOT tachy



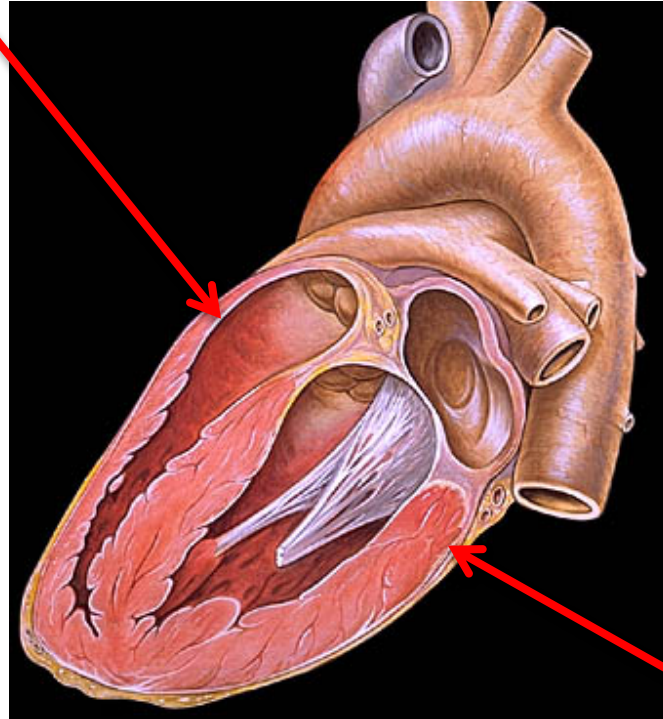
ARVD



Brugada



RVOT tachy
Brugada
ARVD
SC TdP
IFV



PVM
DMD
ARVD
Miocardite
Fibrosi non-
ischemica

Tachicardie ventricolari idiopatiche

PA

RVOT

TA (Peri-His)

PAM

Moderator Band

Aorta

LVOT (AMC)

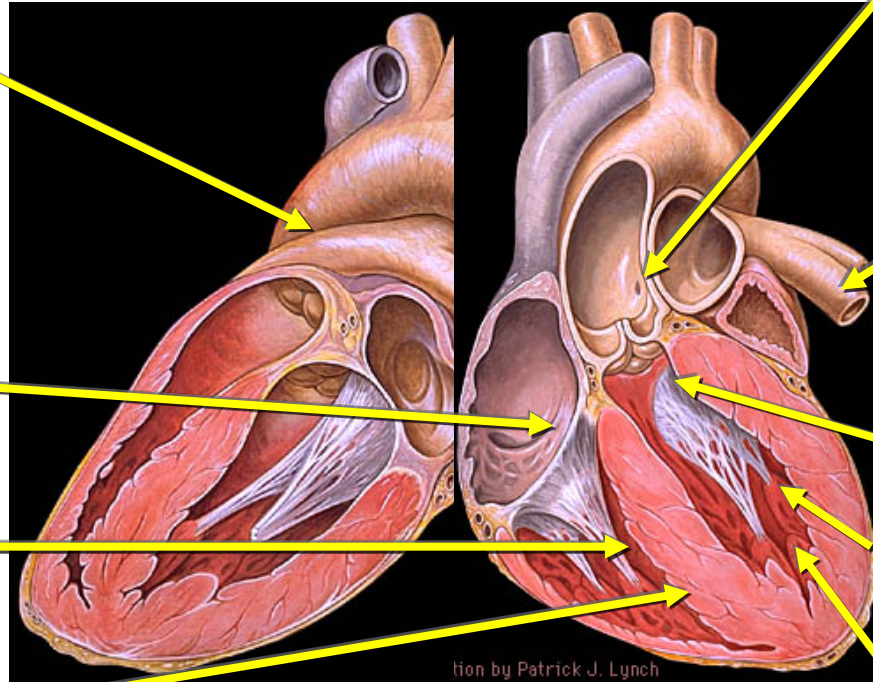
LV summit

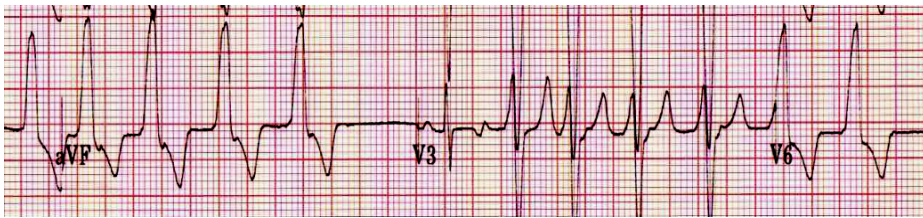
(GCV,AIVV)

MA

LPF >> LAF

PPAM >> APAM

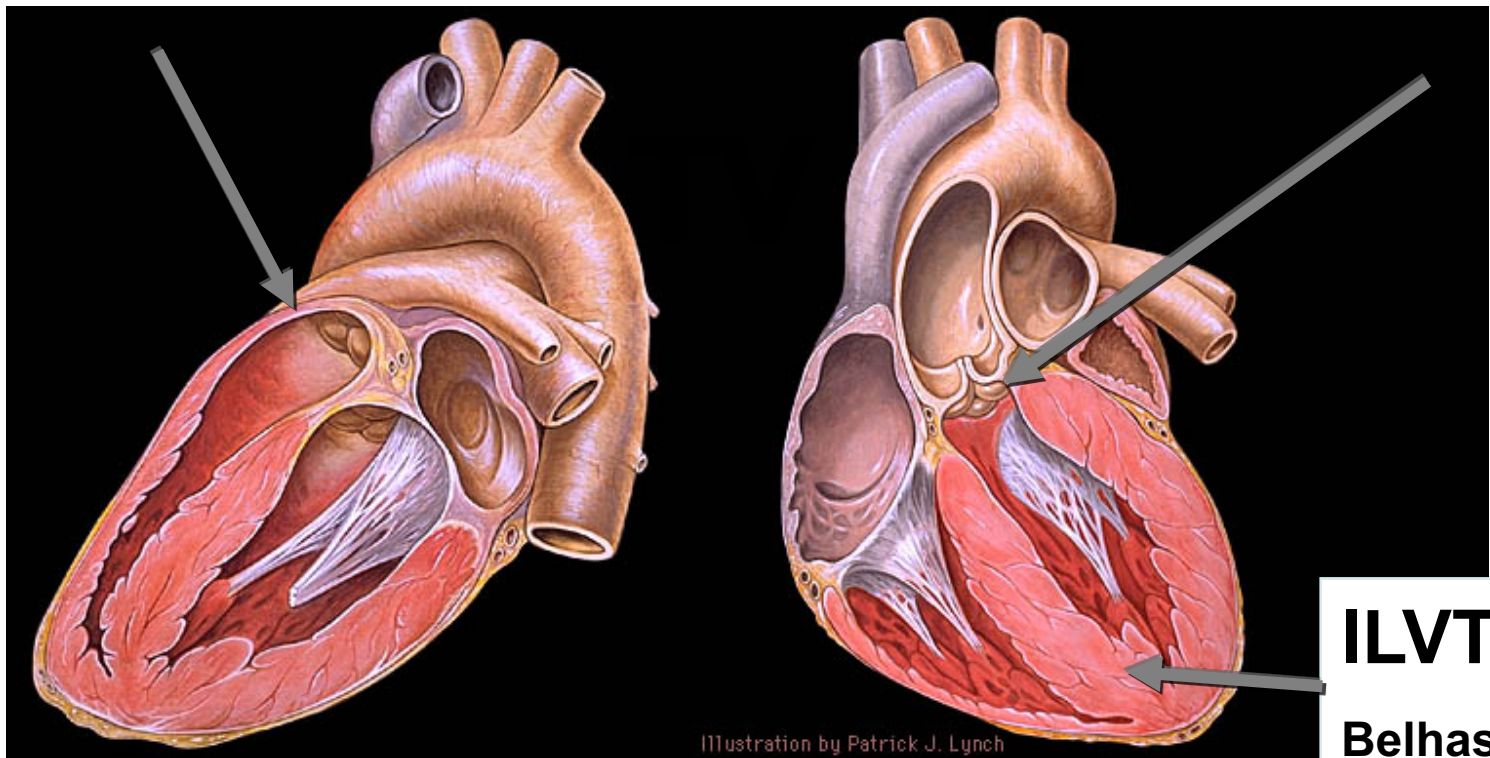




RVOT

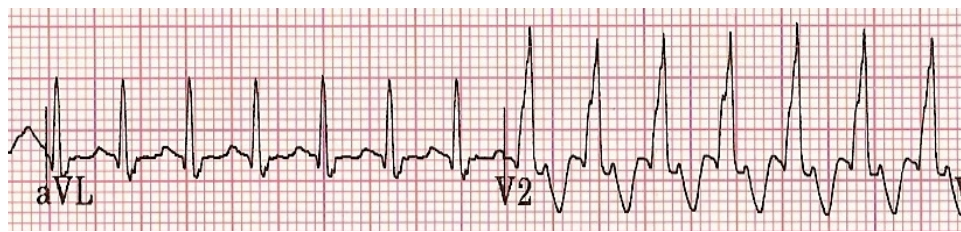


LVOT

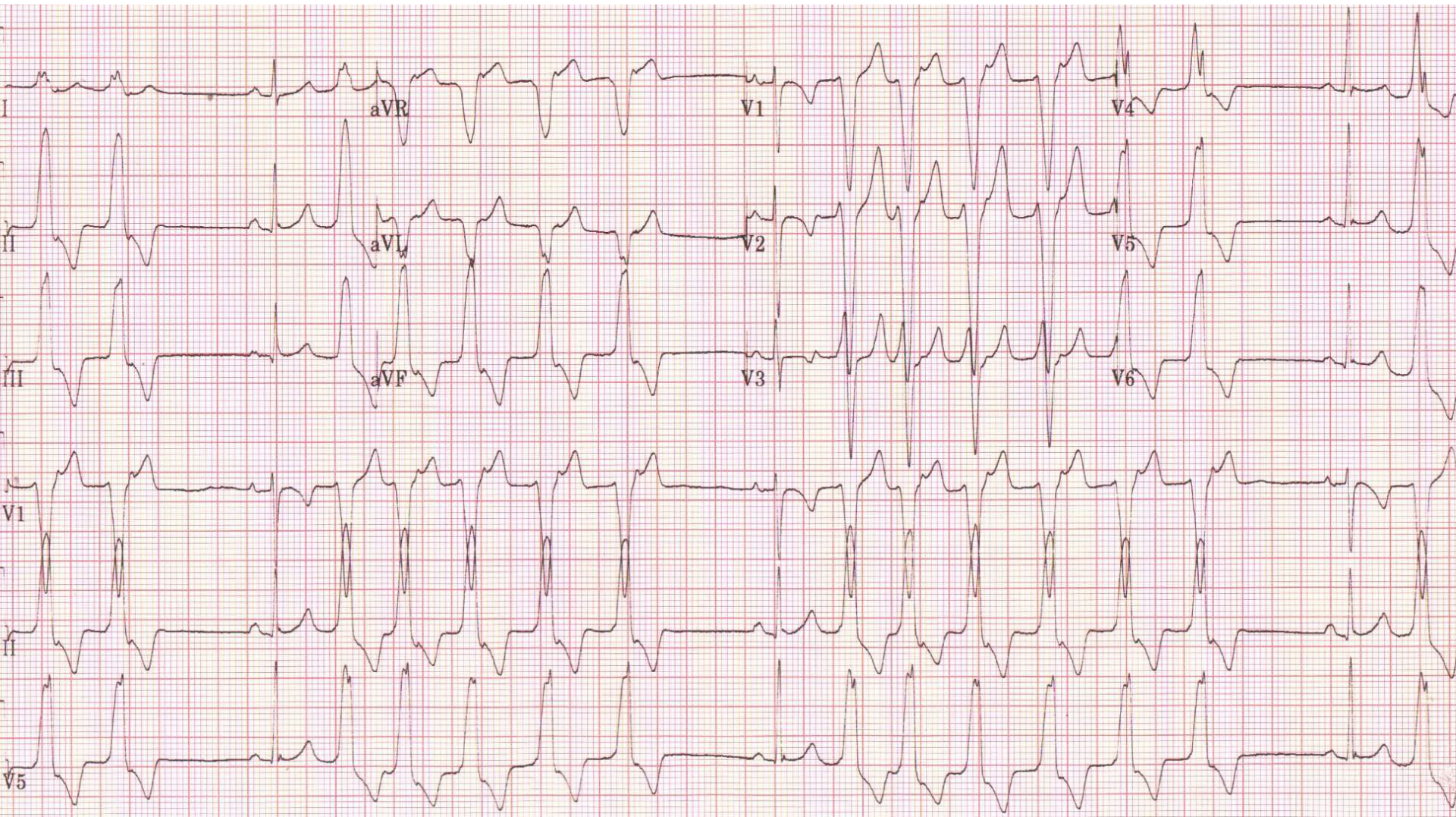


ILVT
Belhassen

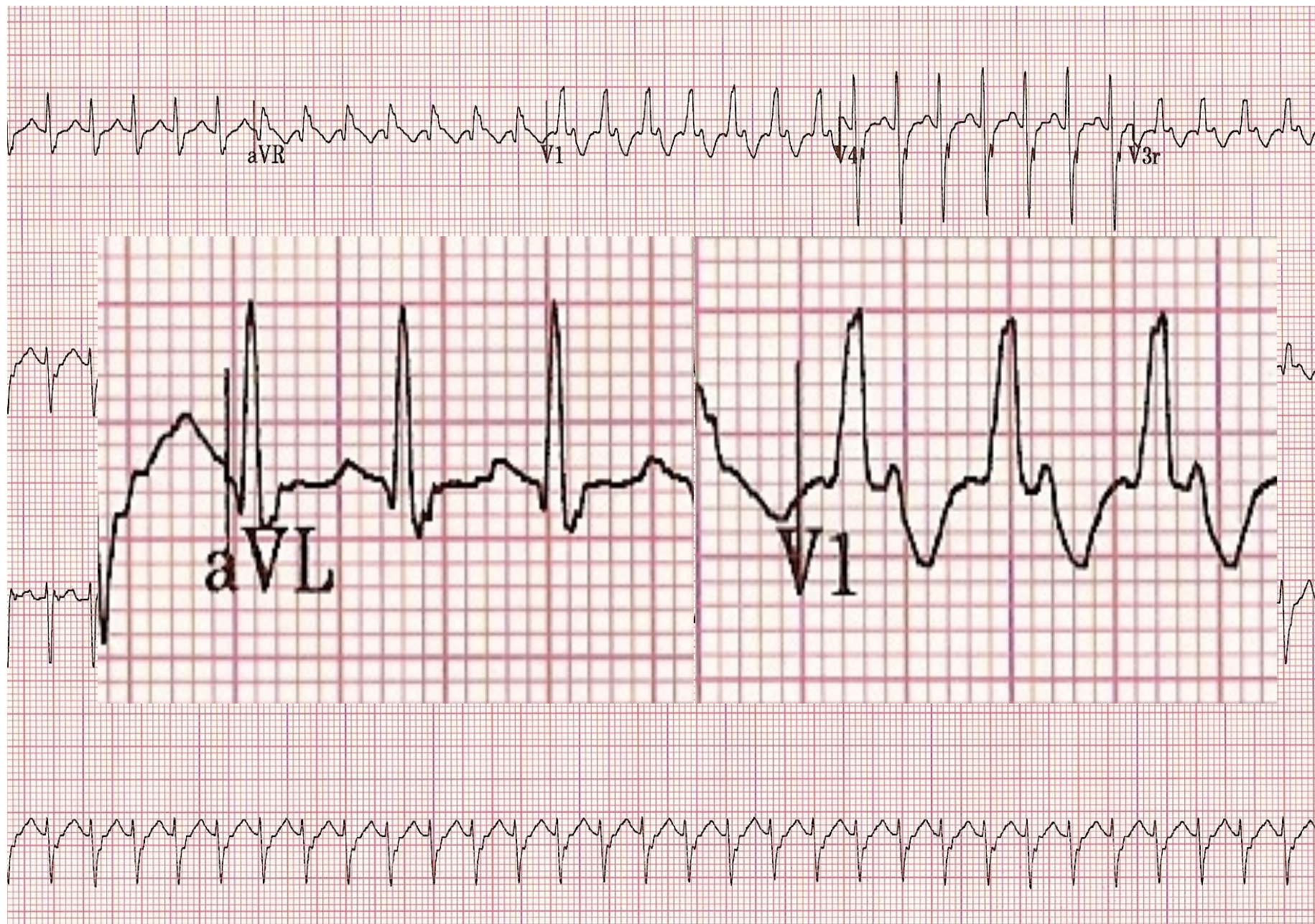
Illustration by Patrick J. Lynch



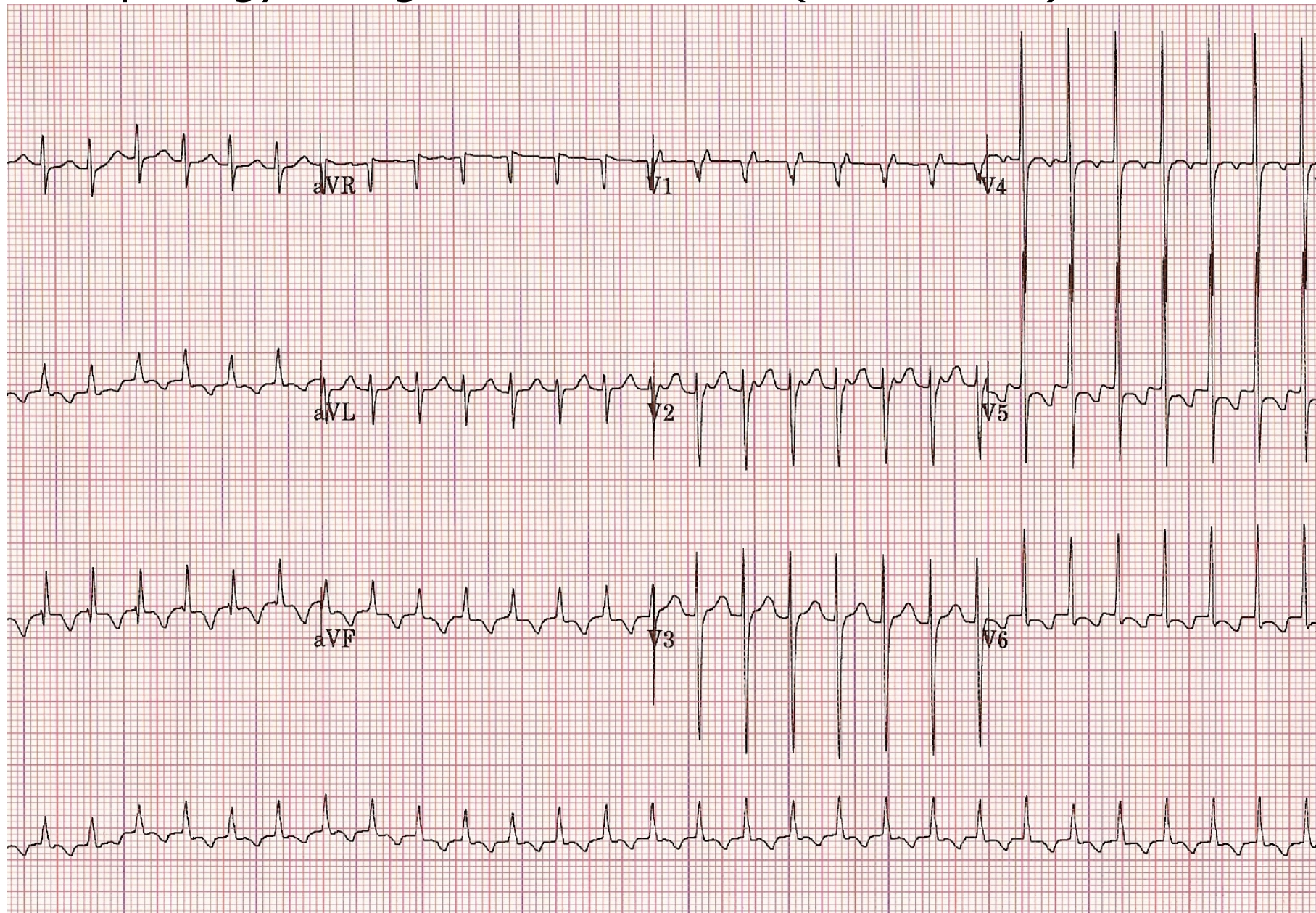
12, aa, femmina, RVOT tachy



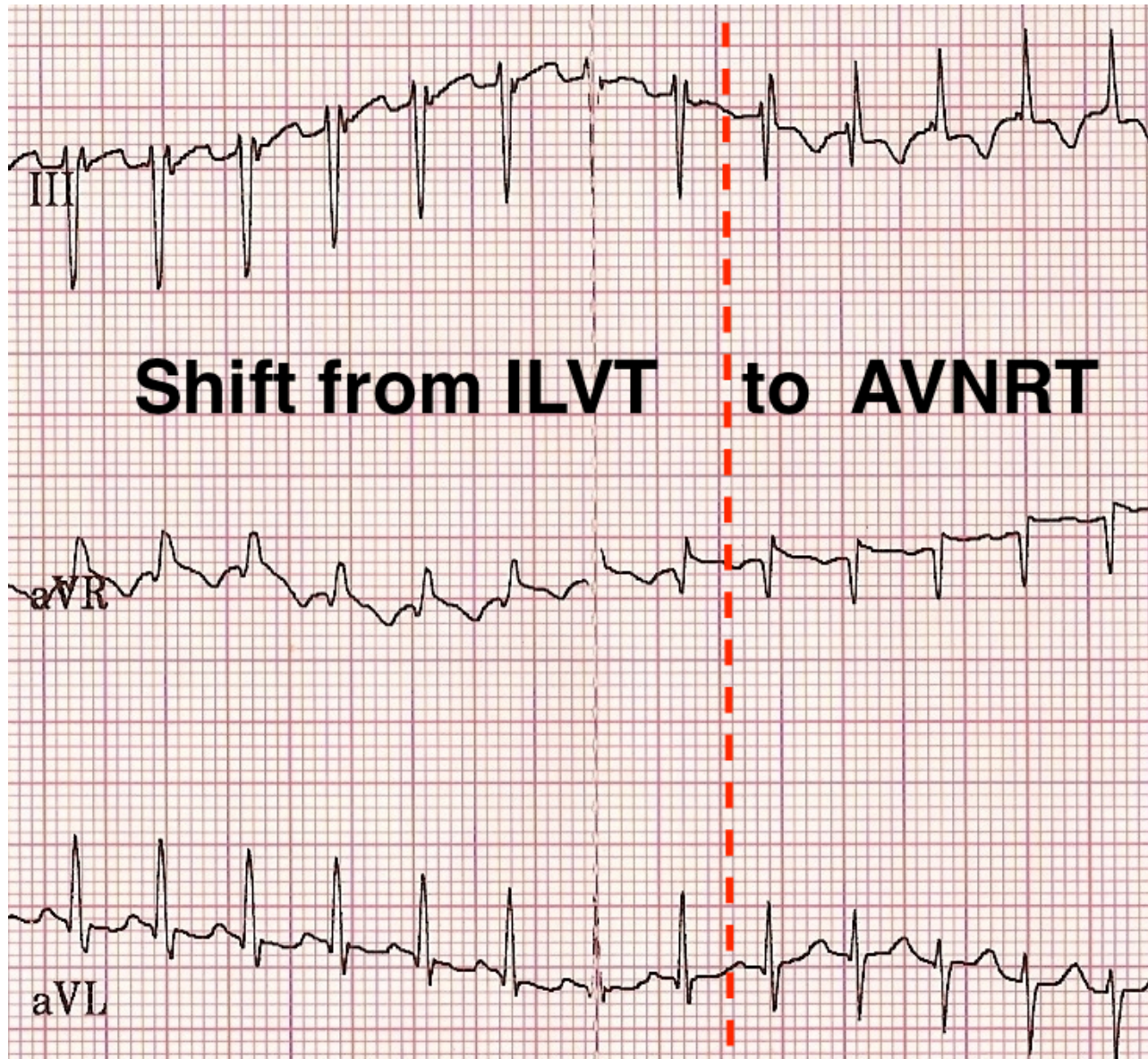
ILVT 8 aa



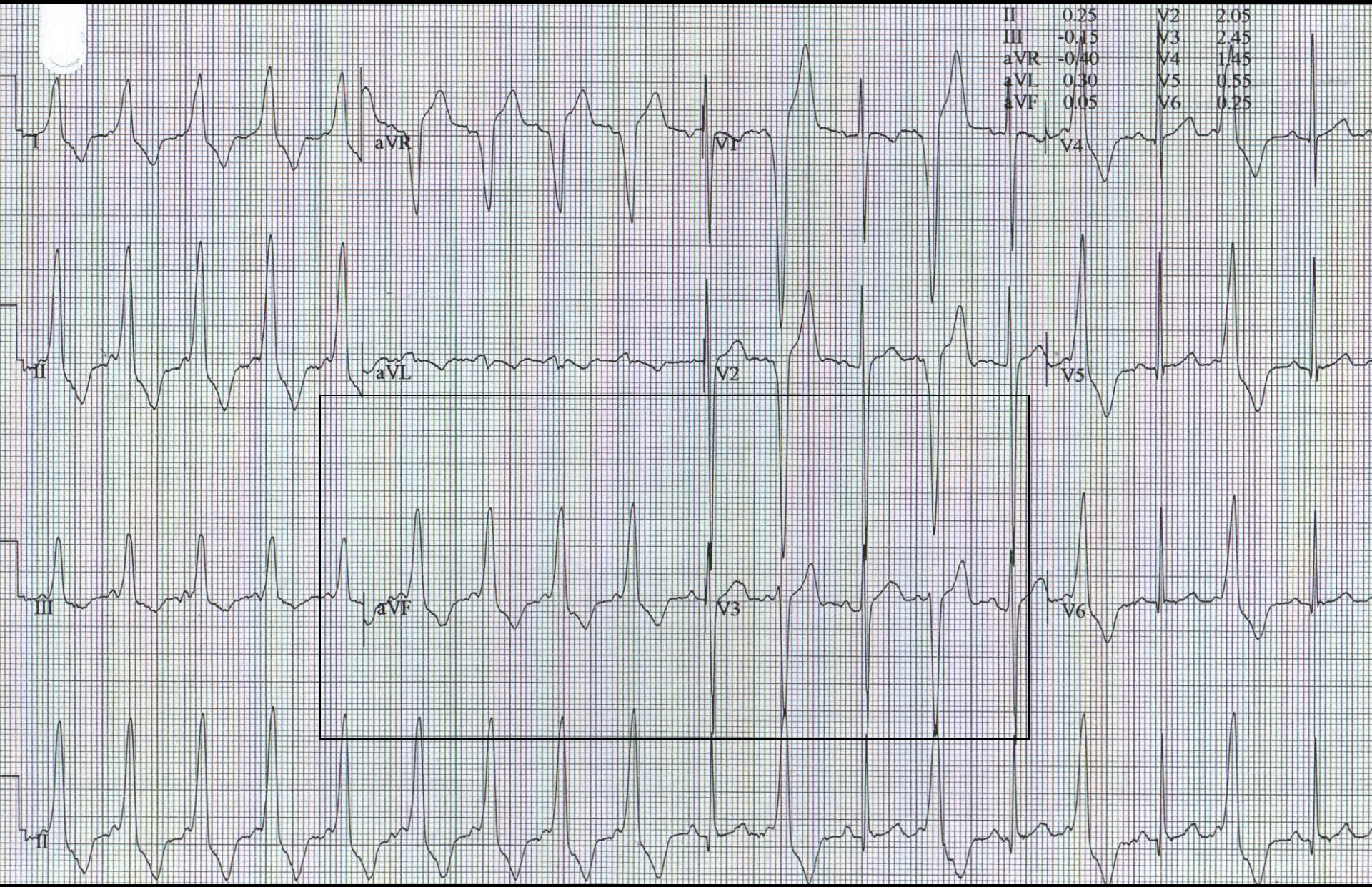
Morphology change after adenosine (60 sec later)



After 55 secs



S.L., 12 aa inviato per TV da sforzo



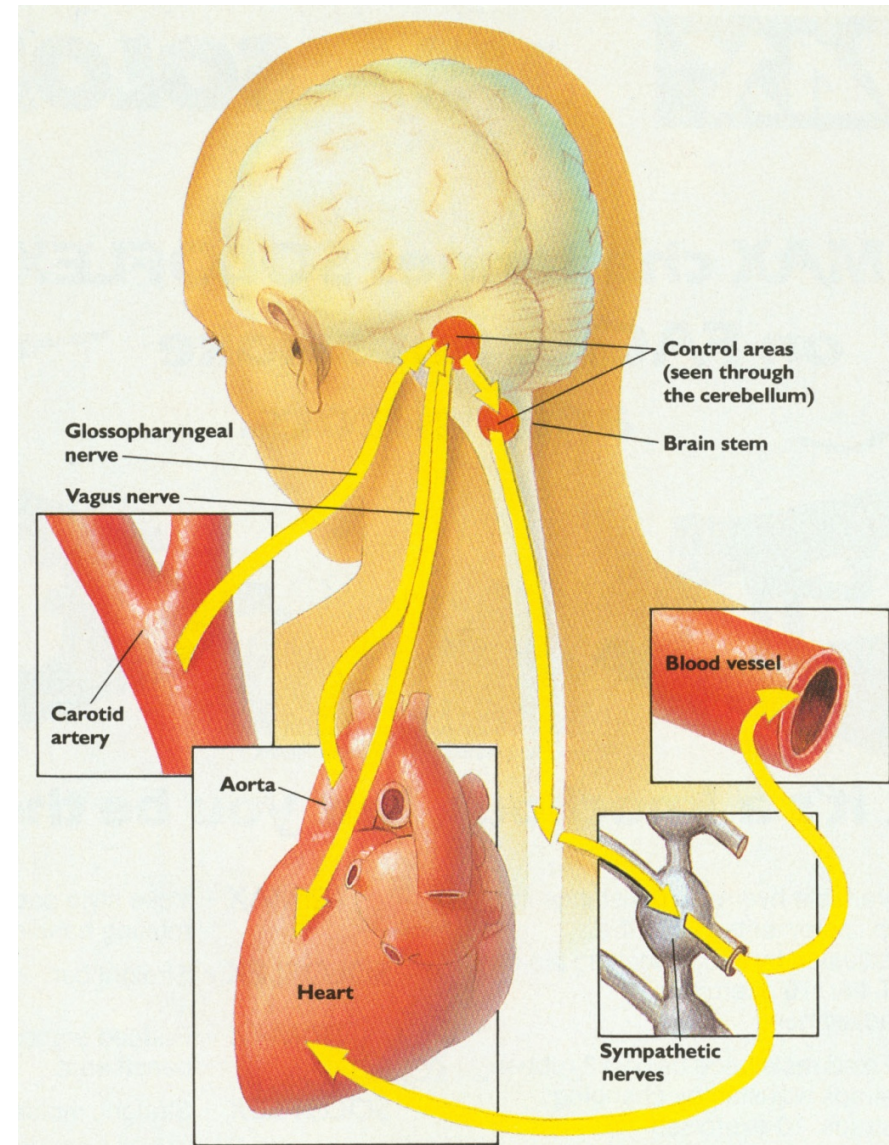
MANOVRE NON FARMACOLOGICHE

- **NEONATI E LATTANTI**

- Diving reflex
- Sondino

- **INFANZIA ED ADOLESCENZA**

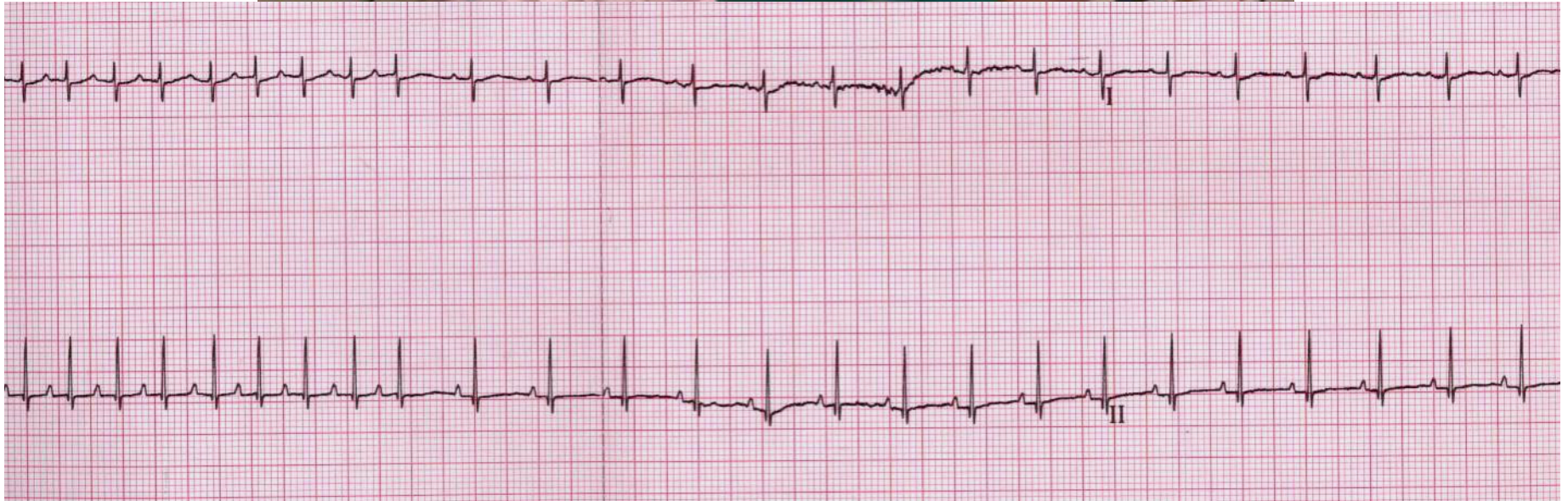
- Valsalva, (bottiglia...)
- Massaggio del seno carotideo
- Vomito, salto, piscina...



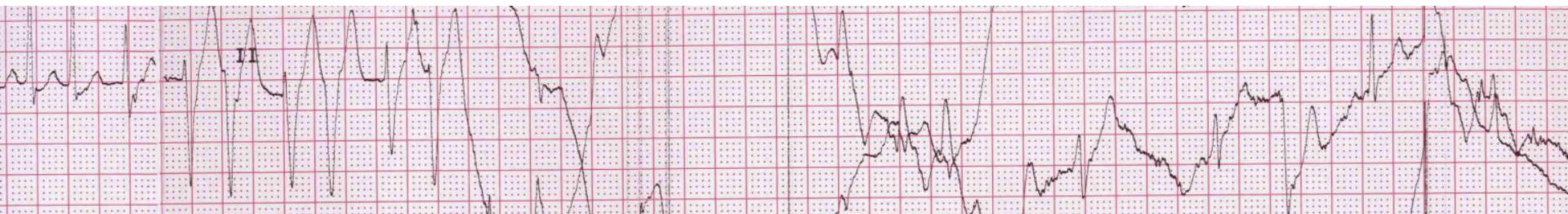
Baby on the Rocks



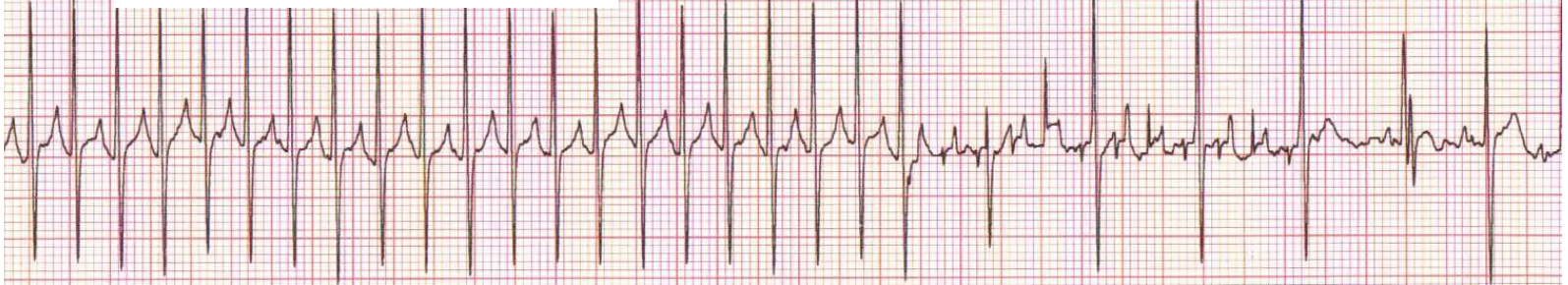
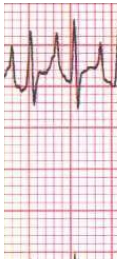
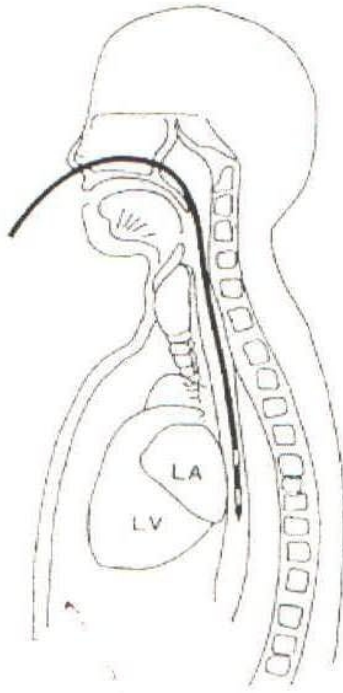
**UTIN S.Orsola , M.D. 5 etti,
severa ipertensione polmonare persistente.
Tp: 5 cubetti di ghiaccio (1 cubetto/etto)**

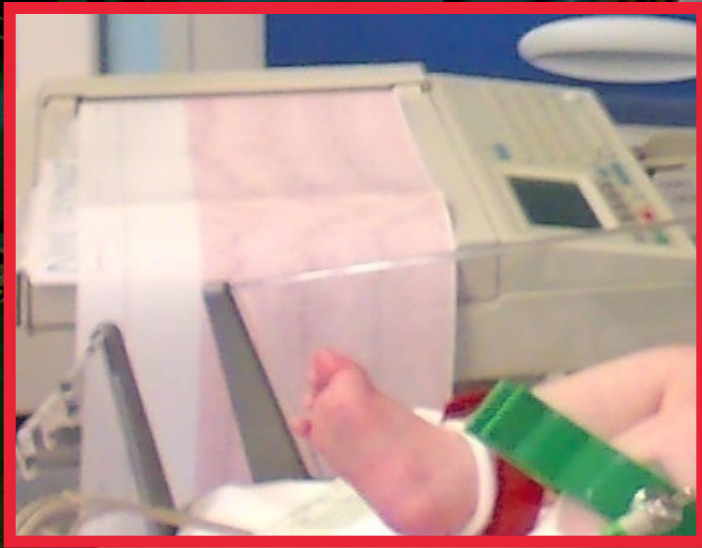
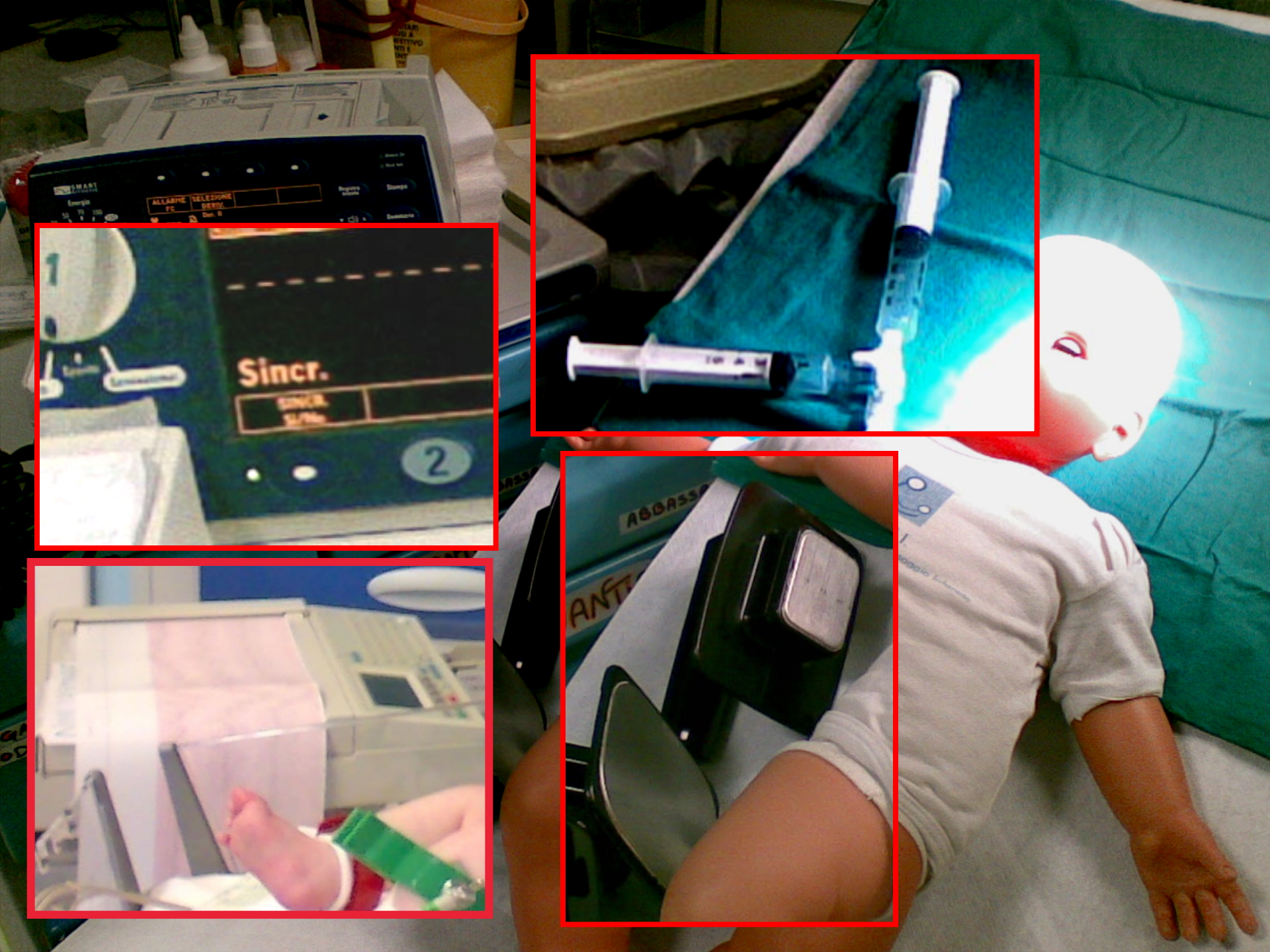


Tacchi in alto- *Tachi* in basso



Stimolazione Elettrica esofagea





BAR Itmico, questione di CLASSE



L' - INA è meglio dell' - ONE, ma l' OLO...

Cos' hanno in comune un barista e aritmista?

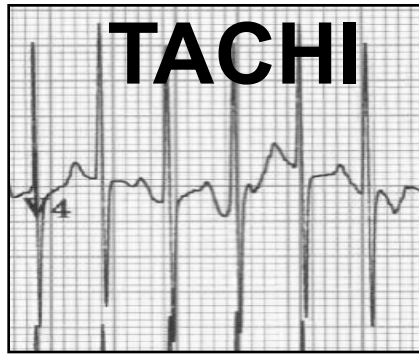


- Hanno il senso per il ghiaccio
- Sanno cos' è un ***baby***
- Tolgono l'acidità, usano **bicarbonato**
- Sanno dosare, il cocktail migliore è essenziale
- Sanno **shakerare, fanno vomitare**

Antiarritmici in età pediatrica

	Dose ev acuto	Infusione	Dose cronica
Adenosina	0.1-0,3 mg/kg in 3"	Bolo rapido	
Amiodarone	5-7 mg/kg in 20'	10-15 mg/kg/die	150/250 mg/m ² /die
Atenololo			1-3 mg/kg/die
Atropina	0.02 mg/kg		
Bicarbonato Na			
Flecainide	1-2 mg/kg in 10'	0.1 mg/kg/h	50-200 mg/m ² /die
DC shock	0.25-4 J /kg		
Digossina	0.020-0.035 mg/kg		Varia x età e peso
Diltiazem	0.15		5 mg/kg mg/kg/die
Disopyramide			
Diving Reflex			
Esmololo			
Lidocaina			
Magnesio solfato			
Massaggio S.C.			
Metoprololo			mg/kg/die
Mexiletina			mg/kg/die
Nadololo			5 mg/kg/die
Procainamide	7-		
Propafenone	0.5		0 mg/m ² /die
Propranololo	0.02		mg/kg/die
Sotalolo	0.2		0 mg/m ² /die
Verapamil	0.		mg/kg/die

- *Il più veloce*
- *Il meno longevo*
- *Il meno proaritmico*
- *Il più dosabile*
- *Il meno inotropo-*



STABILE

SCOMPENSO SEVERO

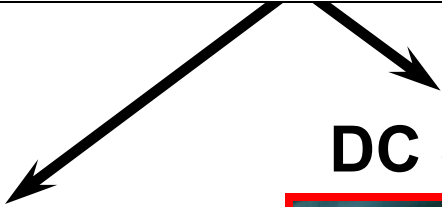
**MANOVRE VAGALI
ADENOSINA**

*Mancanza
accesso venoso*

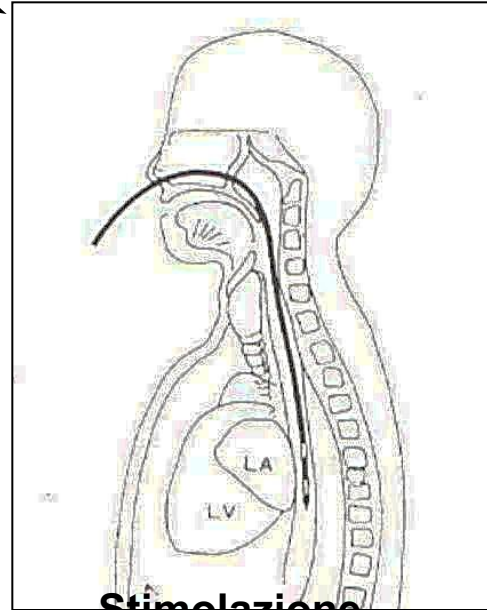
**SE INEFFICACE
O RECIDIVA**

**β Bloccanti
IC
Amiodarone
Ca⁺⁺Anta**

PROFILASSI ?



DC SHOCK



**Stimolazione
Esofagea**

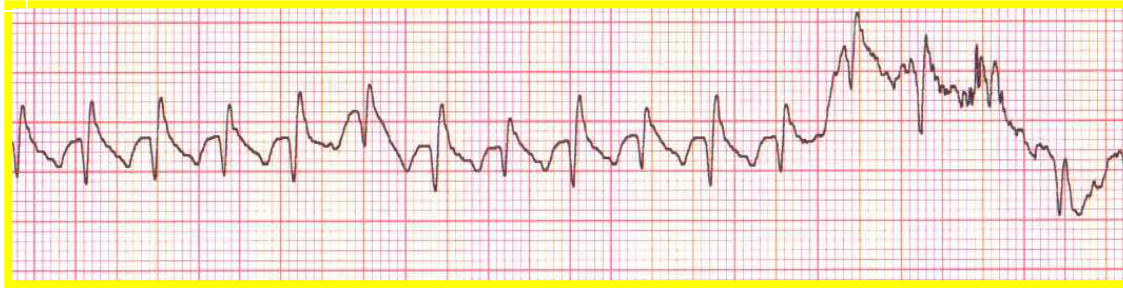


Proaritmia

CAUSA

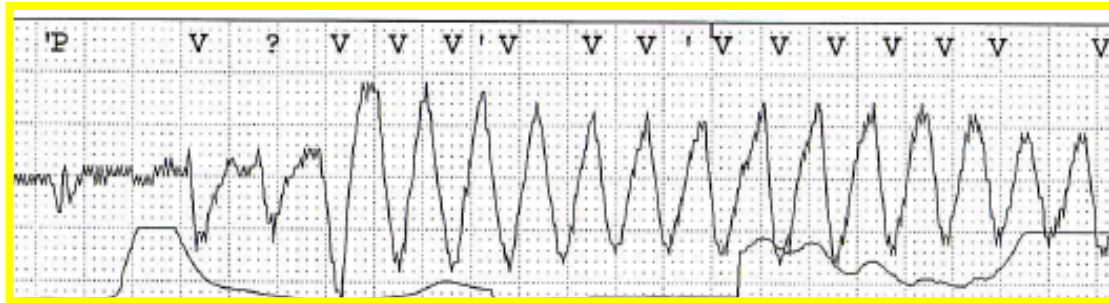
TERAPIA

Classe I



NaHCO₃
BB
NaCl

Classe III



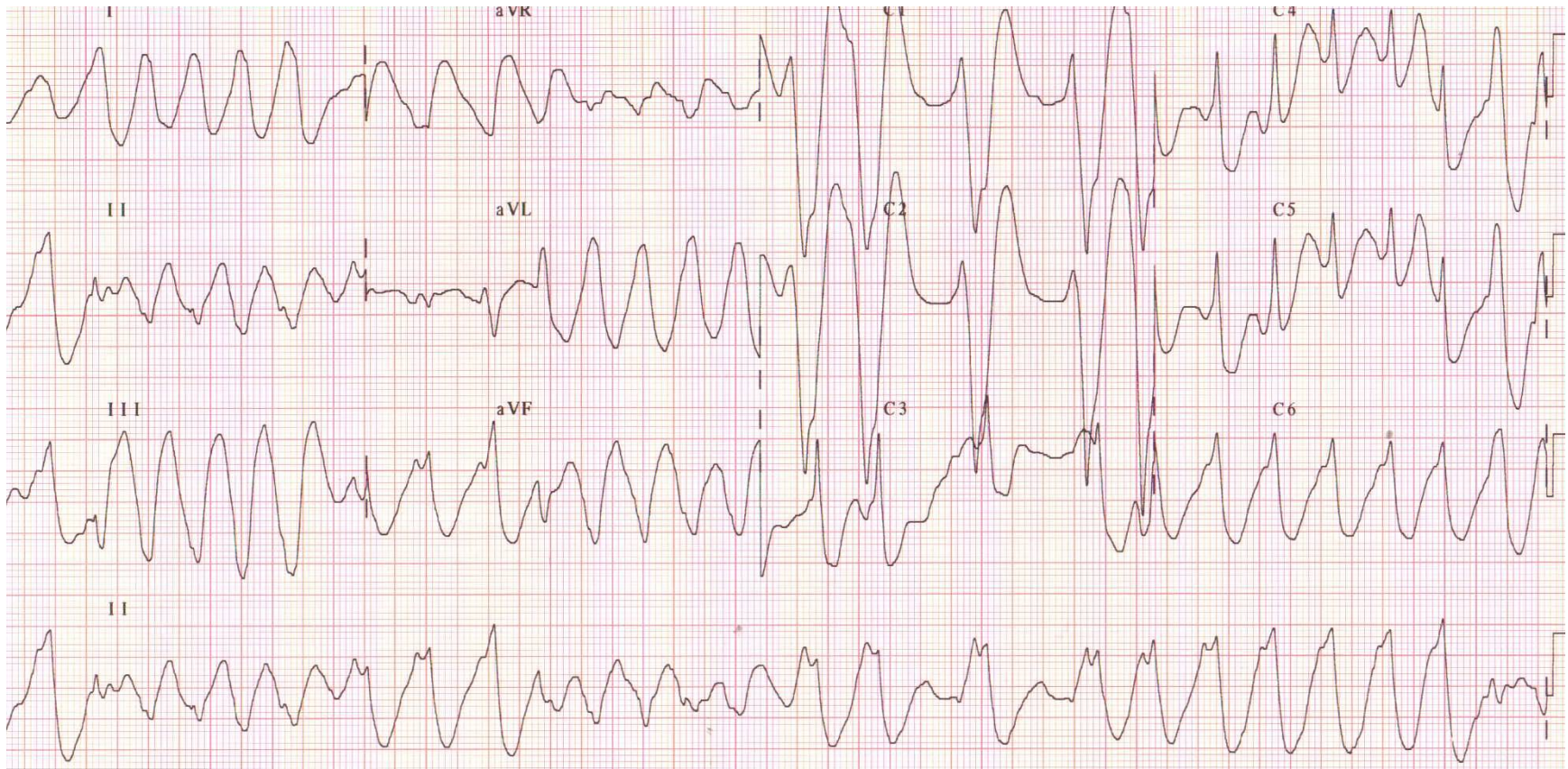
MgSO₄
K
BB

DIUretici
INOtropi

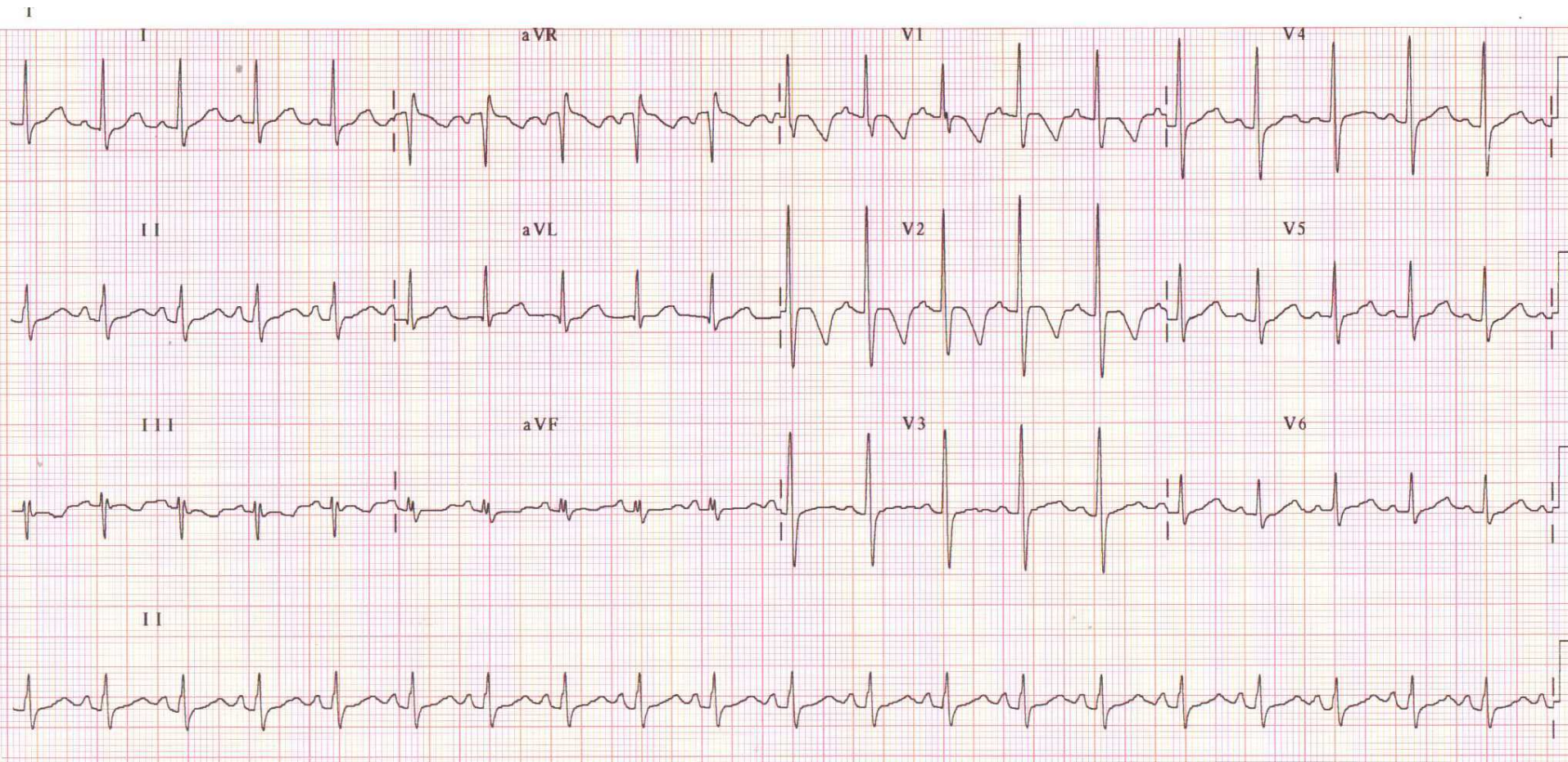


MgSO₄
K
PM

2 anni DIV, TPSV intossicazione da flecainide



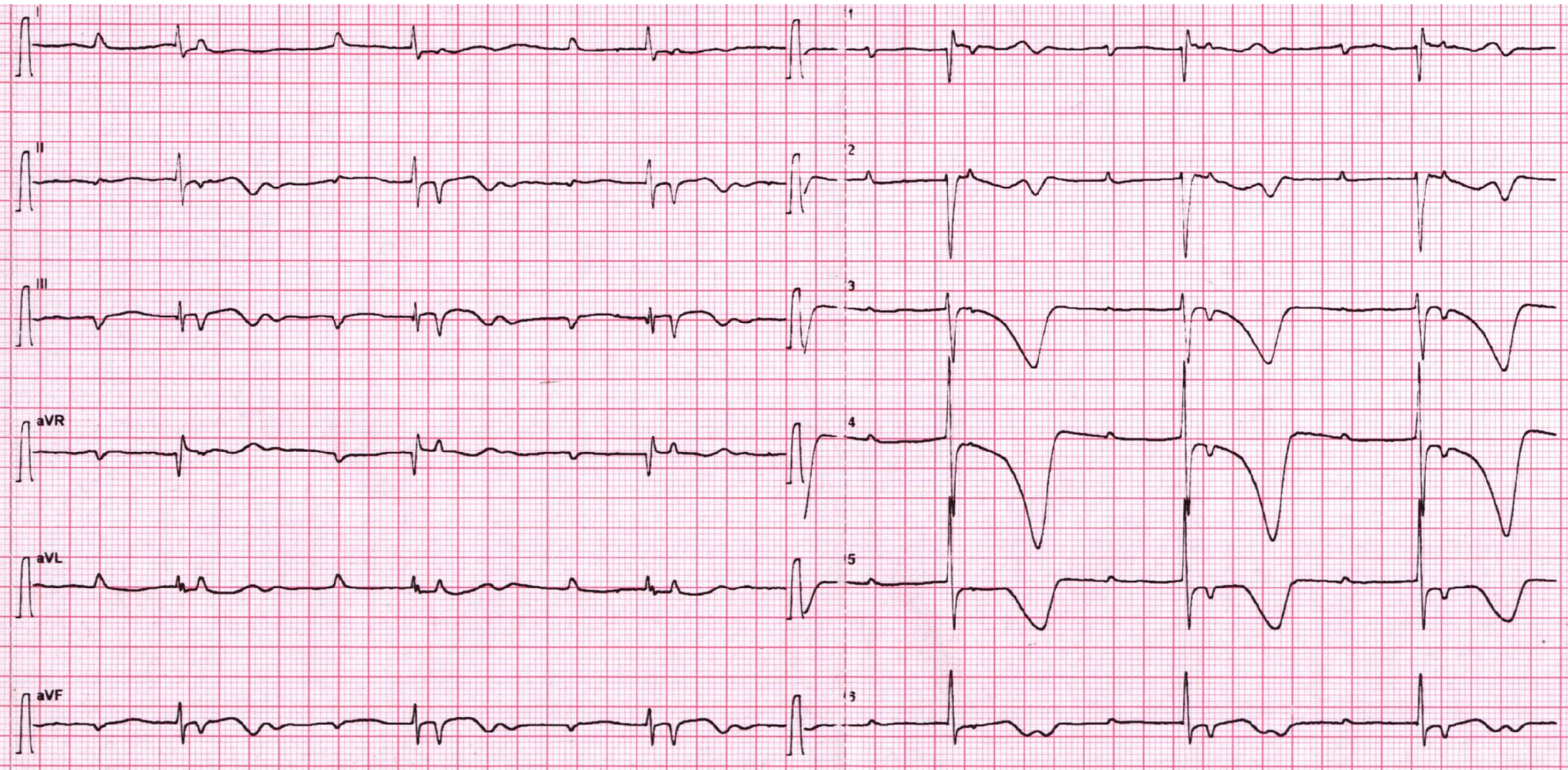
Solo Na H CO 3, rinato a BO



MB, 8 anni

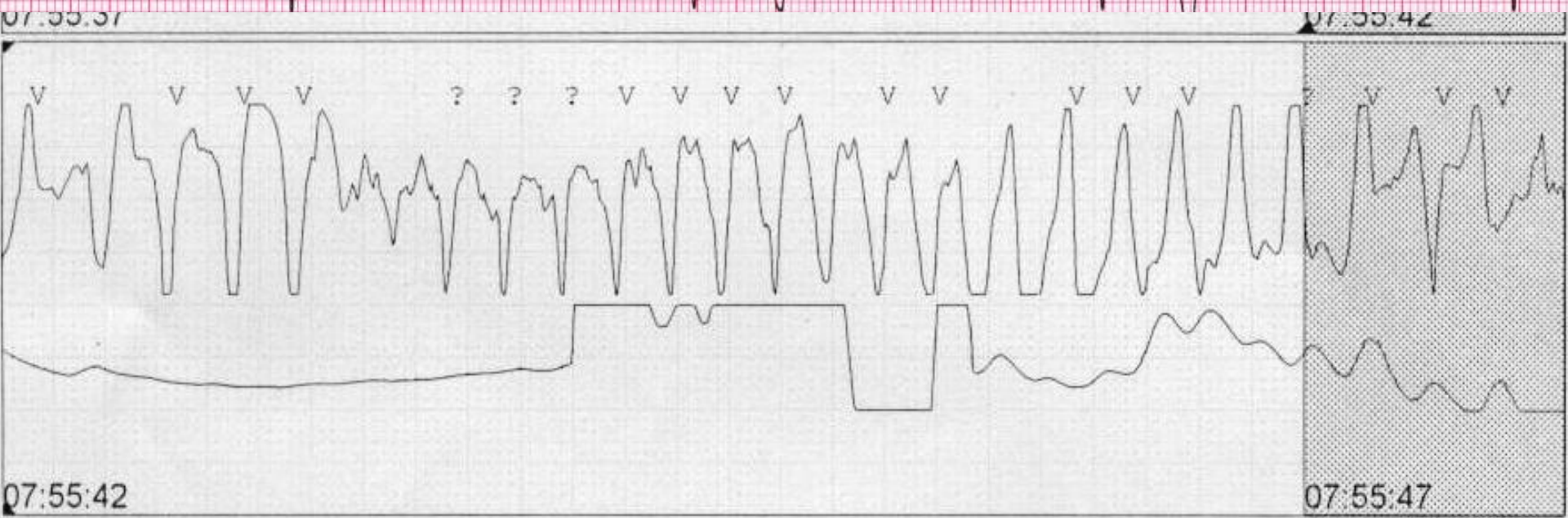
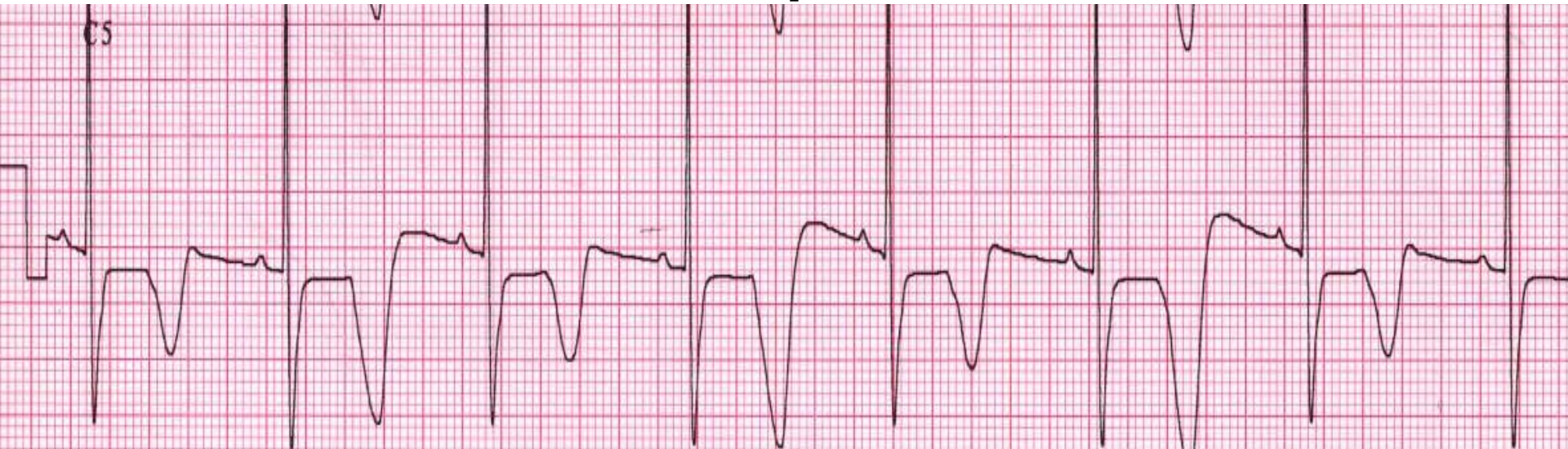
A casa , due episodi sincopali a riposo, uno in bagno, rapida
ripresa

ECG PS

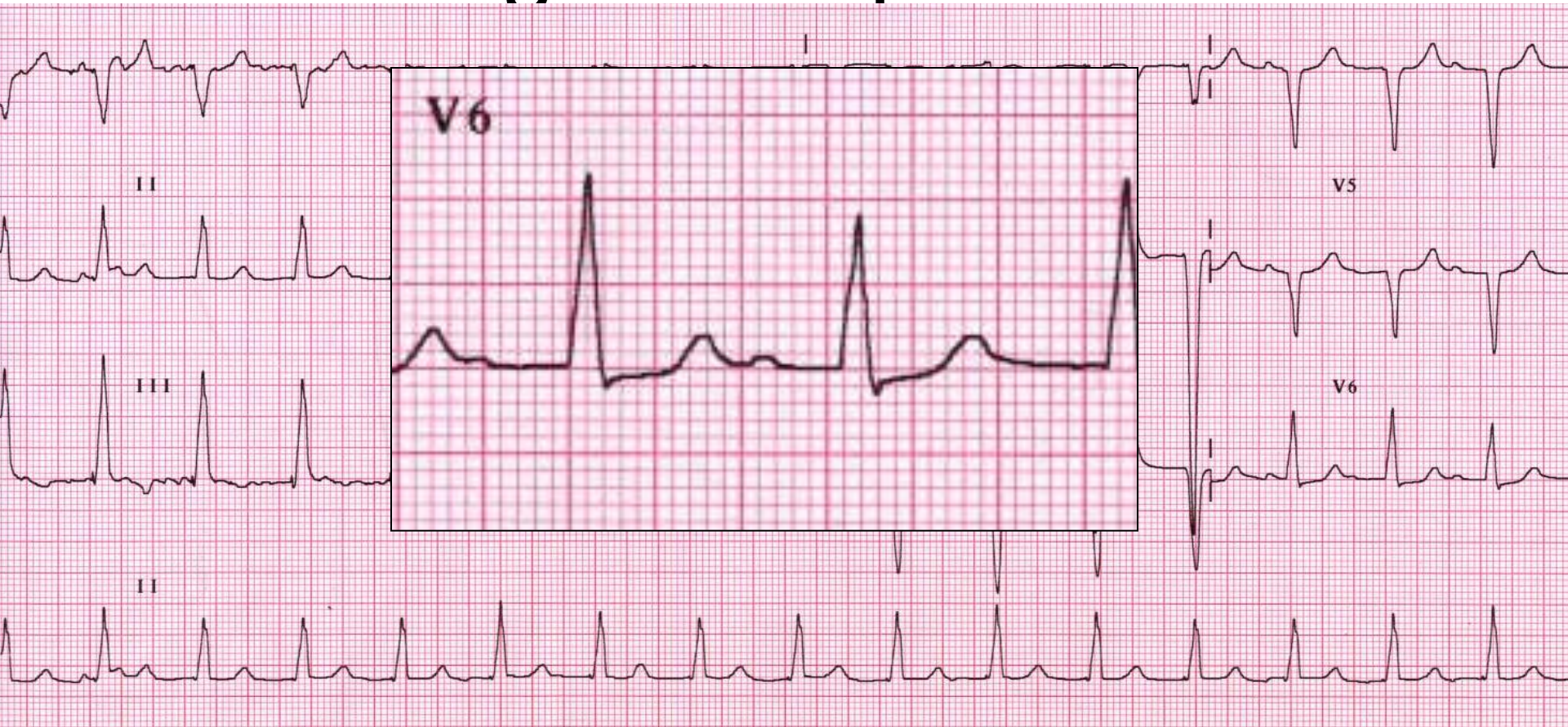


Discusso caso con nostro reparto che consiglia ricovero presso cardiologia adulti del centro accogliente e organizzare il trasferimento l'indomani

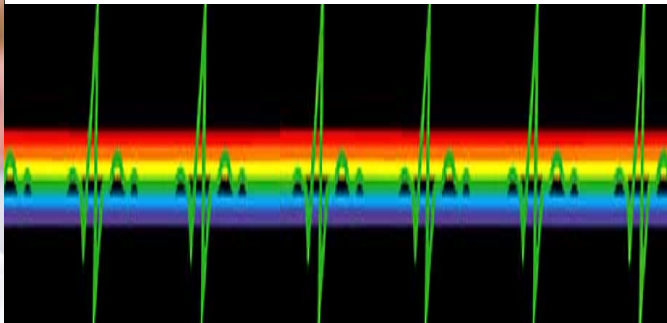
In reparto



5 giorni dopo PM



Trasferimento di CERVELLO e *SCHWANZSTUCK*



Conclusioni

Capire cosa c'è sotto

Attenzione ai farmaci nei GUCH

No minestroni

Meglio la terapia elettrica

SPF Si può fare!

