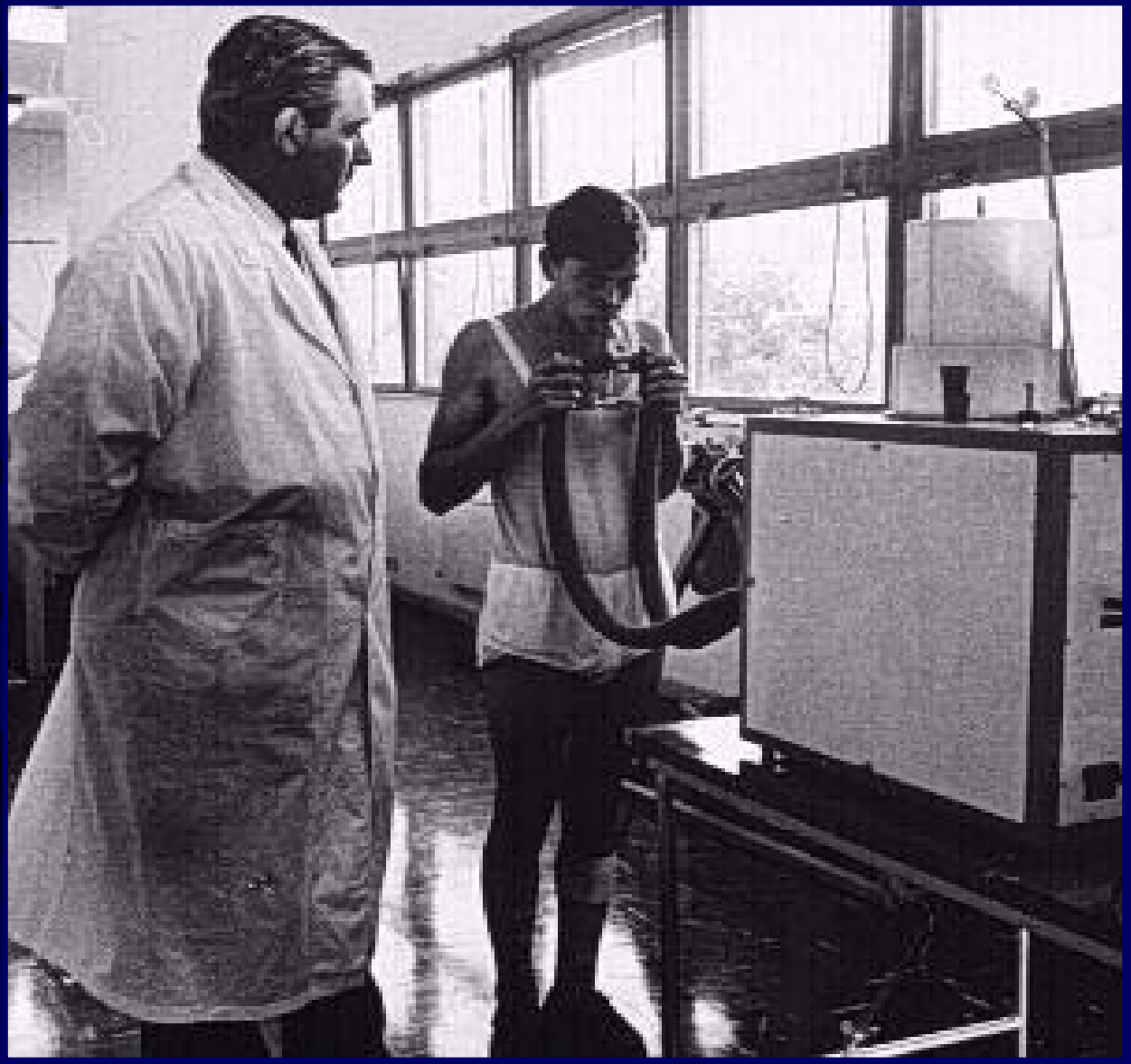
Considerazioni sui nuovi protocolli del COCIS

Antonio Spataro

Segretario COCIS

Istituto di Medicina e Scienza dello Sport

CONI - Roma



C.O.C.I.S.

1° edizione 1989

SIC Sport
FMSI
ANMCO
SIC
ANCE


IV Edizione del COCIS
Edizione del Ventennale
(1989-2009)
Italia

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PROTOCOLLO IDONEITÀ CARDIOLOGICA

Protocolli cardiologici per il giudizio di idoneità allo sport agonistico

P. P. CAMPA, G. CASELLI, A. CHERCHI, L. D'ANDREA, P. DELISE, F. FURLANELLO, U. GUIDUCCI, T. LUBICH, A. NOTARISTEFANO, A. PELLICCIA, F. RICHIERI, P. SOLINAS, A. SPATARO, G. TUCCIMEI, P. ZARDINI, P. ZEPPILLI

Comitato Organizzativo Cardiologico per l'Idoneità allo Sport (FMSI - SIC-SPORT - SIC - ANCE - ANMCO)

PROTOCOLLI CARDIOLOGICI PER IL GIUDIZIO DI IDONEITA' ALLO SPORT AGONISTICO (1989-1995-2003-2009)

- SIC Sport
- FMSI
- ANMCO
- SIC
- ANCE

AIAC

ARCA

SIEC

SICP


COMITATO ORGANIZZATIVO CARDIOLOGICO
PER L'IDONEITÀ ALLO SPORT
ANCE - ANMCO - FMSI - SIC - SIC SPORT
Protocolli cardiologici per il giudizio di idoneità allo sport agonistico 2009
Edizione del Ventennale
Casa Editrice Scientifica Internazionale

L’idoneità cardiologica in presenza di problematiche specifiche:

- Atleta master

(P.Zeppilli, U. Guiducci, R.Bettini)

COCIS 2009

L’idoneità cardiologica in presenza di problematiche specifiche:

Atleta paralimpico

(V.Palmieri, A.Spataro, M. Bernardi)

COCIS 2009

L’idoneità cardiologica in presenza di problematiche specifiche:

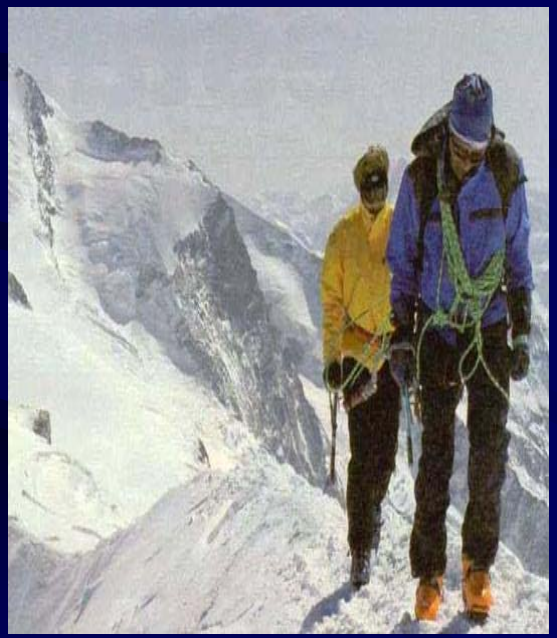
Atleta diabetico

(L.D’Andrea, A.Anedda, A. Cristiano)

L’idoneità cardiologica in presenza di problematiche specifiche:

Gli ambienti straordinari

(U. Berrettini, F. Torchia, A. Landolfi)

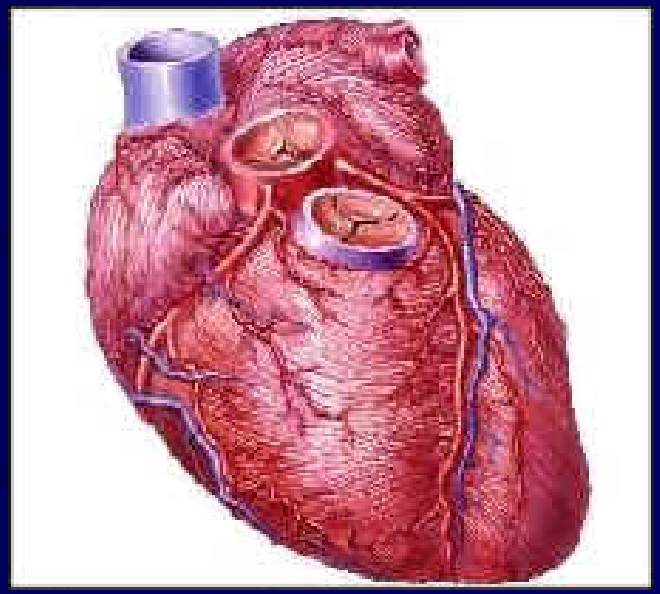


L’idoneità cardiologica in presenza di problematiche specifiche:

Effetti cardiovascolari dei farmaci di interesse medico-sportivo

(F. Furlanello, F. Botré, D. Accettura)

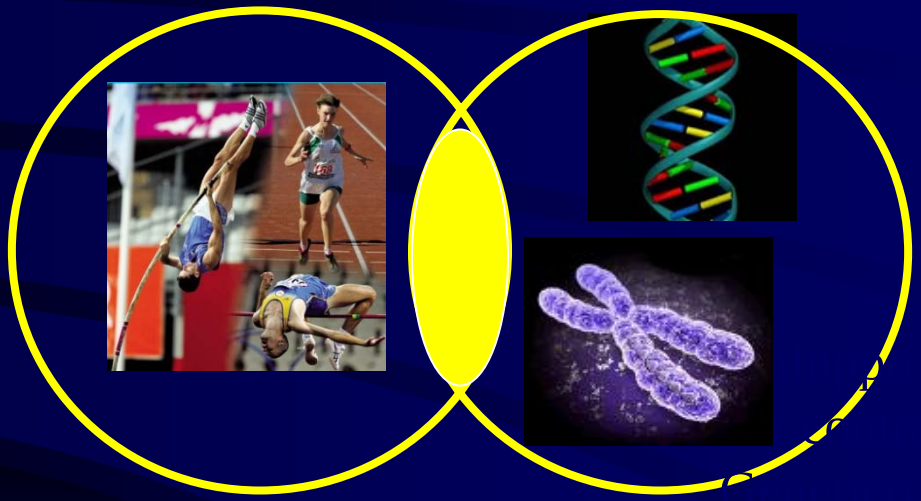
FANS
Beta 2-Agonisti
Ormoni Tiroidei
Antistaminici
Diuretici
Betabloccanti
Psico-attivi
Anabolic Steroids
GH
Amphetamines
Cocaine
Ephedrine
Narcotics
Cannabinoids



L’idoneità cardiologica in presenza di problematiche specifiche:

Valore e limiti dei test genetici in cardiologia dello sport

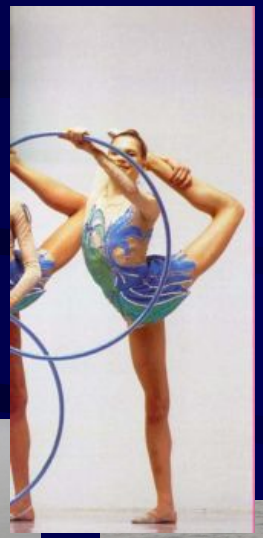
(P. Schwartz, P. Delise, C. Basso)

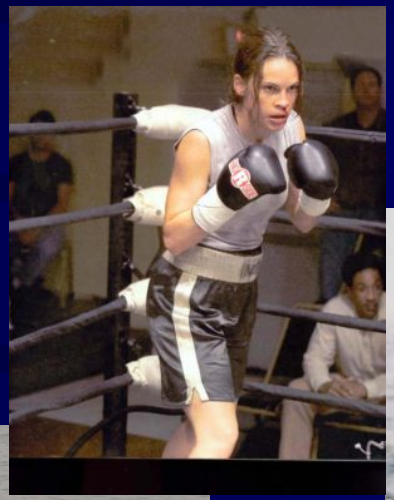


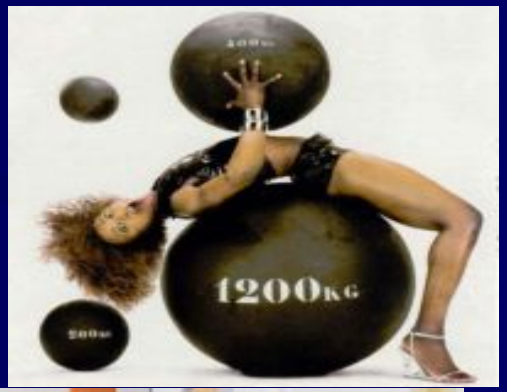
SPORT

GENETICA

CLASSIFICAZIONE DEGLI SPORT



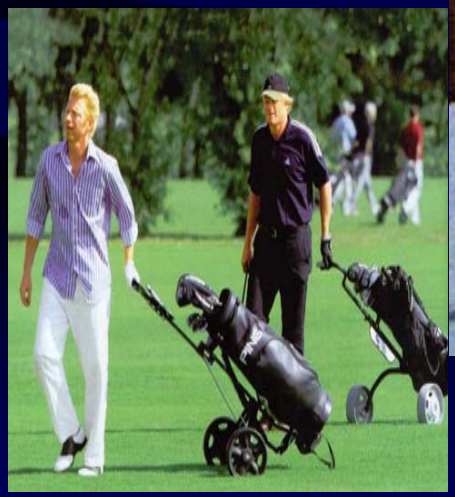


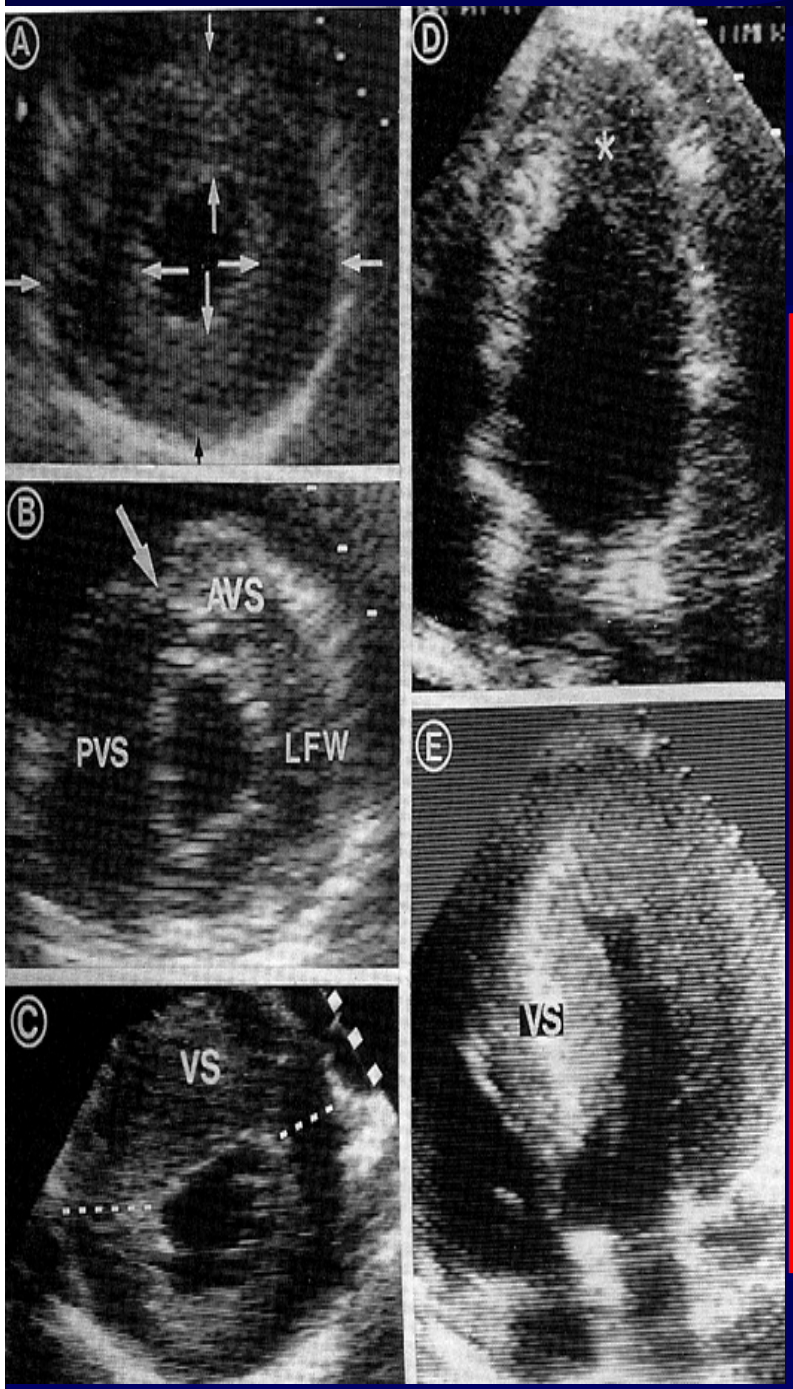


Gruppo A

Attività sportive con impegno cardiocircolatorio di tipo “neurogeno”

caratterizzate da incrementi principalmente della frequenza cardiaca da minimi a moderati (senza significativi aumenti della gettata cardiaca) dovuti, soprattutto in competizione, alla componente emotiva



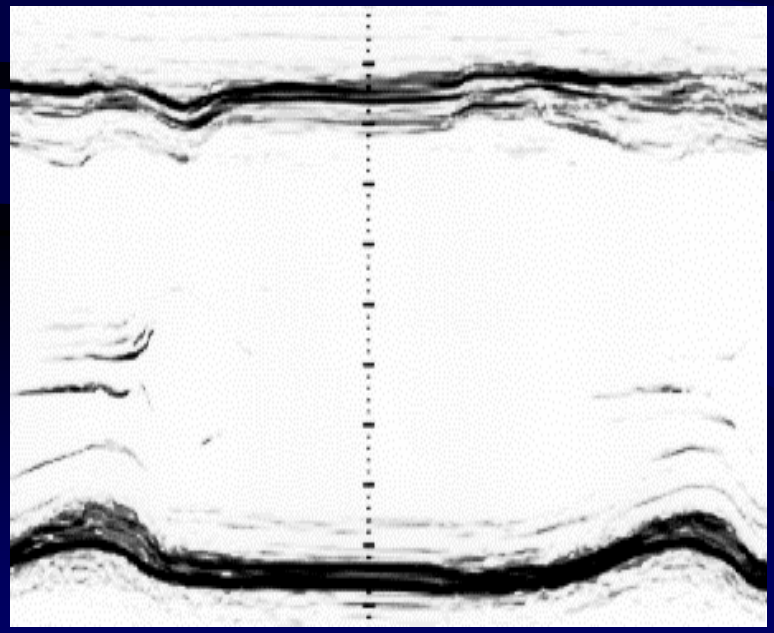


Raccomandazioni COCIS 2009

I soggetti con diagnosi <u>certa</u> di CMI non debbono partecipare all' attività agonistica

Una possibile eccezione è rappresentata da soggetti considerati a basso rischio. Per tali soggetti è possibile concedere un' idoneità per alcune discipline sportive a basso impegno cardiovascolare (per esempio, bocce, golf, sport di tiro, pesca e caccia sportiva, bridge, dama e scacchi

Raccomandazioni COCIS 2009



I soggetti con diagnosi certa di CMD non debbono partecipare all' attività agonistica.

Una possibile eccezione è rappresentata da soggetti considerati a basso rischio. Per tali soggetti è possibile concedere un' idoneità per alcune discipline sportive a basso impegno cardiovascolare

Gruppo B

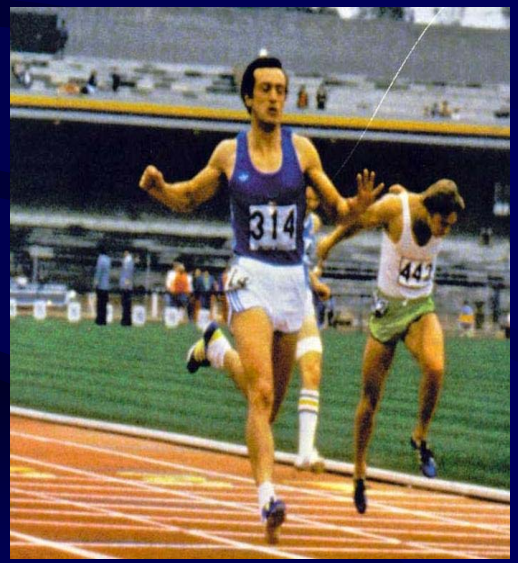
Attività sportive con impegno cardiocircolatorio di tipo “neurogeno”

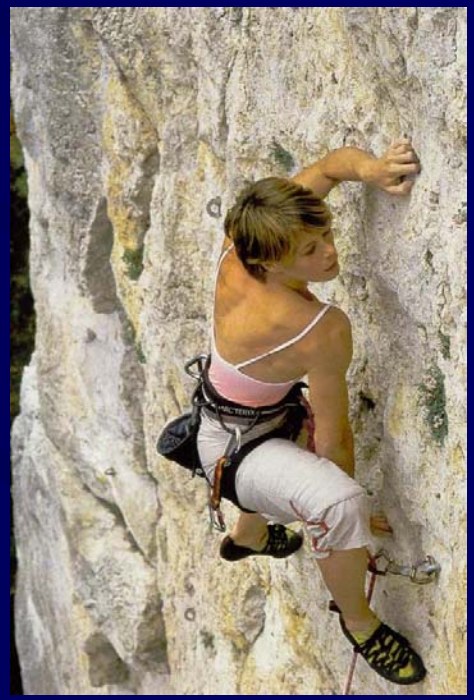
caratterizzate da incrementi principalmente della frequenza cardiaca da medi ad elevati e lievi della gettata cardiaca e delle resistenze periferiche

Gruppo C

Attività sportive con impegno cardiocircolatorio di tipo prevalentemente di tipo pressorio

caratterizzate da frequenza cardiaca da elevata a massimale, resistenze periferiche da medie ad elevate, gettata cardiaca non massimale





Gruppo D

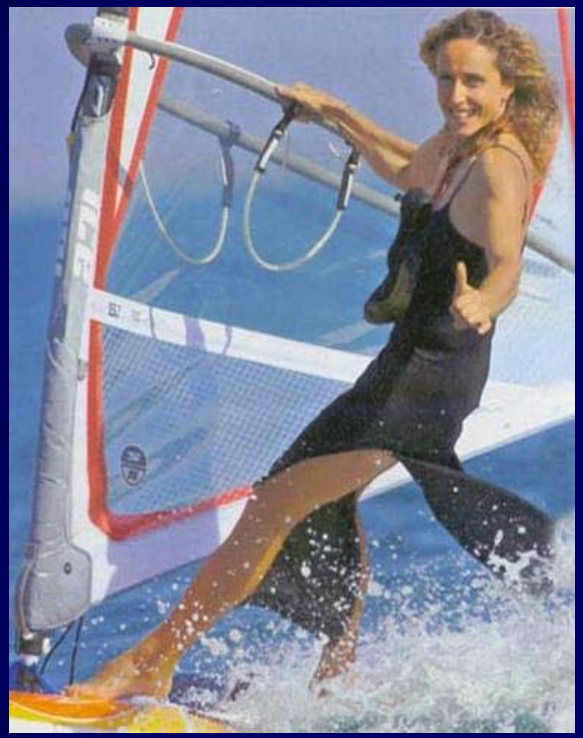
Attività sportive con impegno cardiocircolatorio da medio ad elevato

D1caratterizzate da variabile andamento della FC, delle resistenze periferiche e della gettata cardiaca

Gruppo D

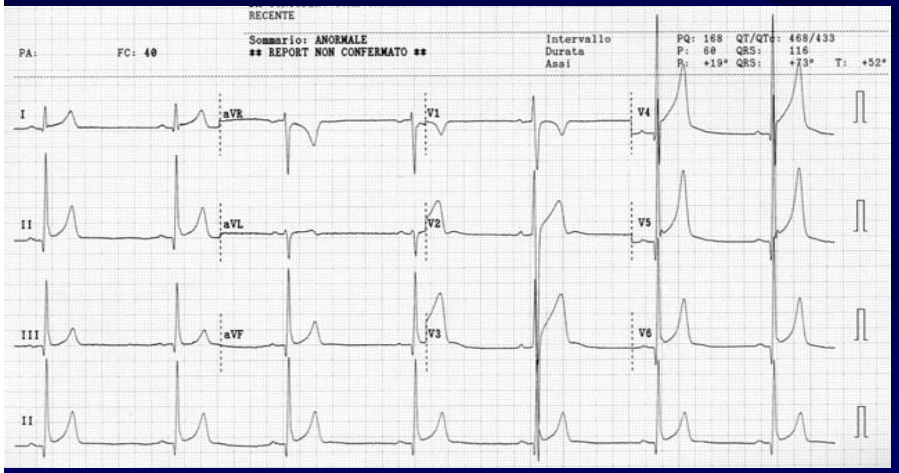
Attività sportive con impegno cardiocircolatorio da medio ad elevato

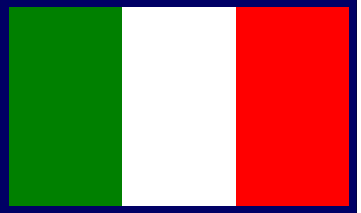
D2 caratterizzate da regolari incrementi submassimali o massimali della FC e della gettata cardiaca, e da ridotte resistenze periferiche



18 Febbraio 1982
D.M. recante le norme per l'attività sportiva agonistica

SCREENING PREVENTIVO CARDIOVASCOLARE

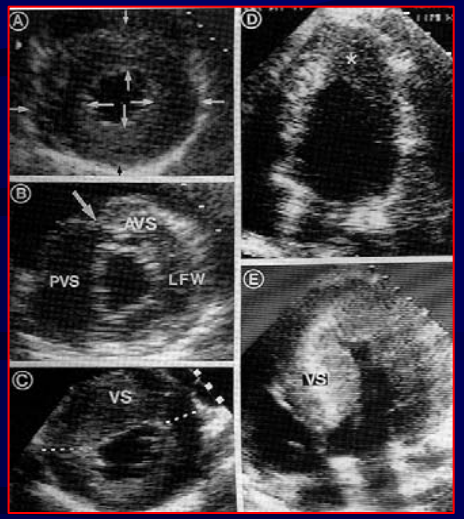


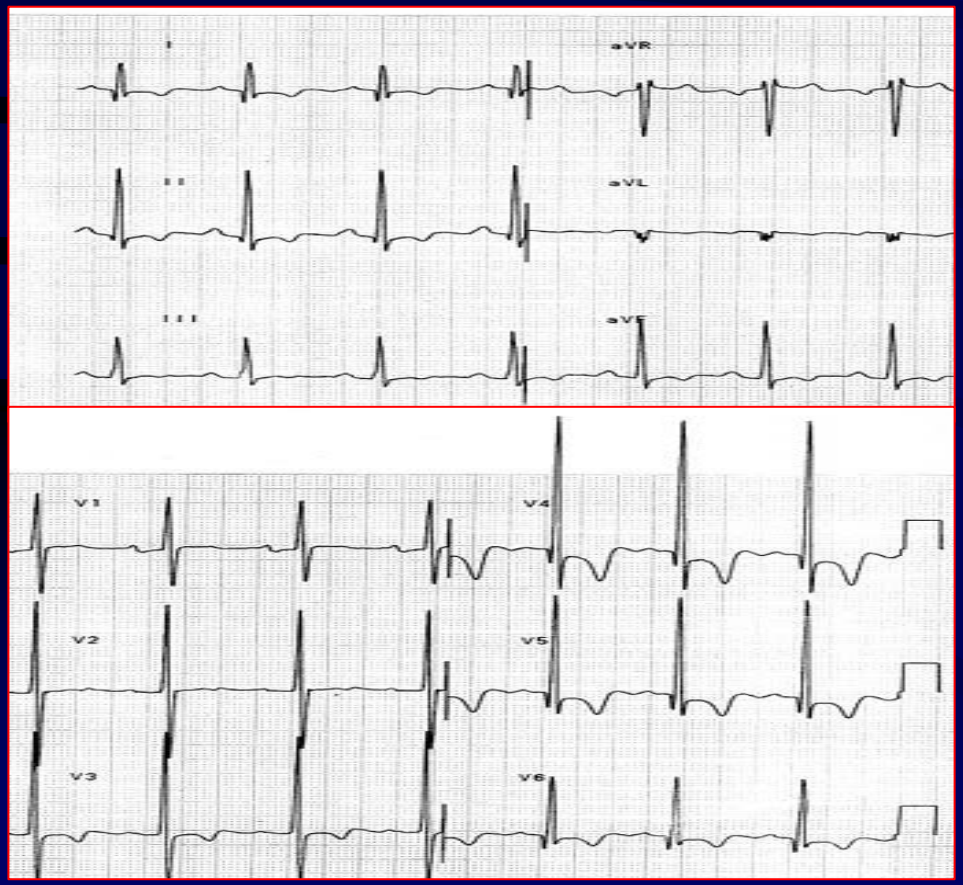


Visita medica
Elettrocardiogramma a riposo e dopo sforzo
Spirografia
Esame completo delle urine

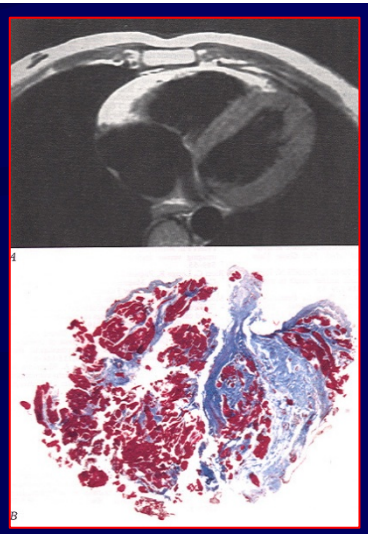
Il medico visitatore ha facoltà di richiedere ulteriori esami specialistici e strumentali su motivato sospetto clinico

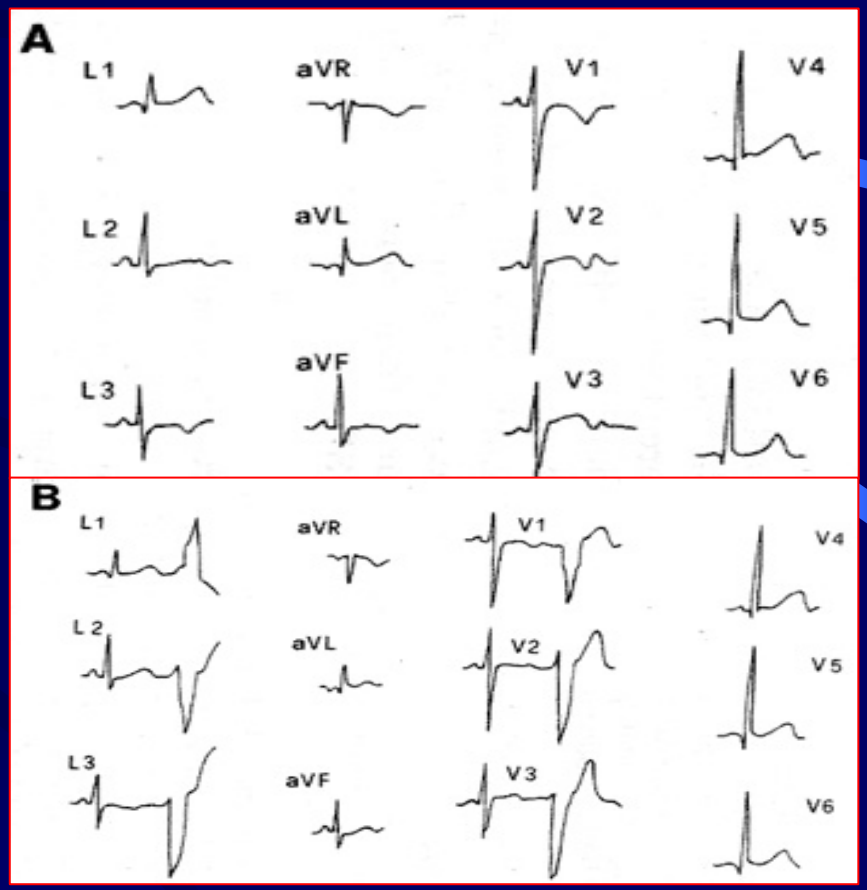
HCM


A
D
B
AVS
PVS
LFW
E
C
VS
VS

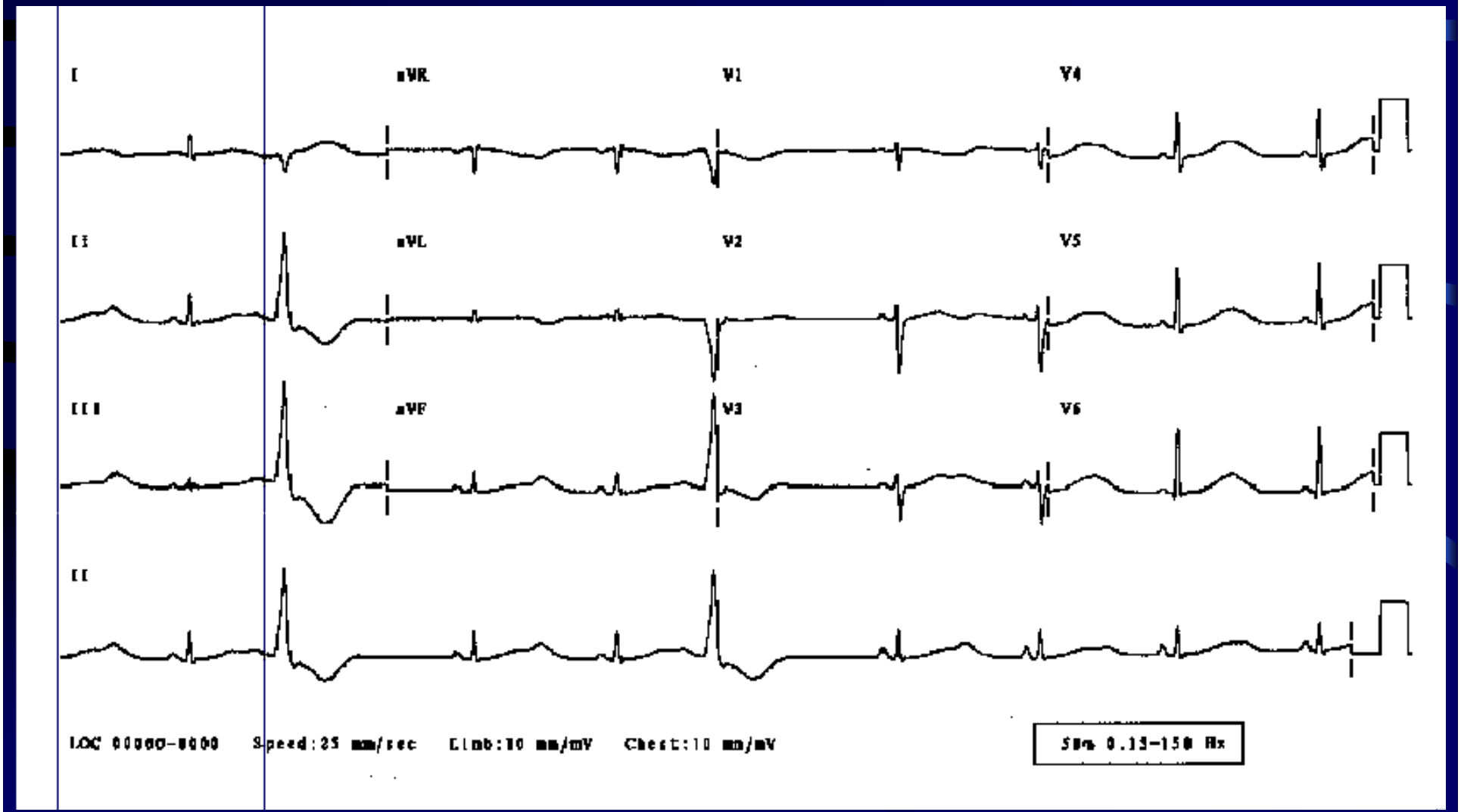

I
aVR
II
aVL
III
aVF
V1
V4
V2
V5
V3
V6

ARVC

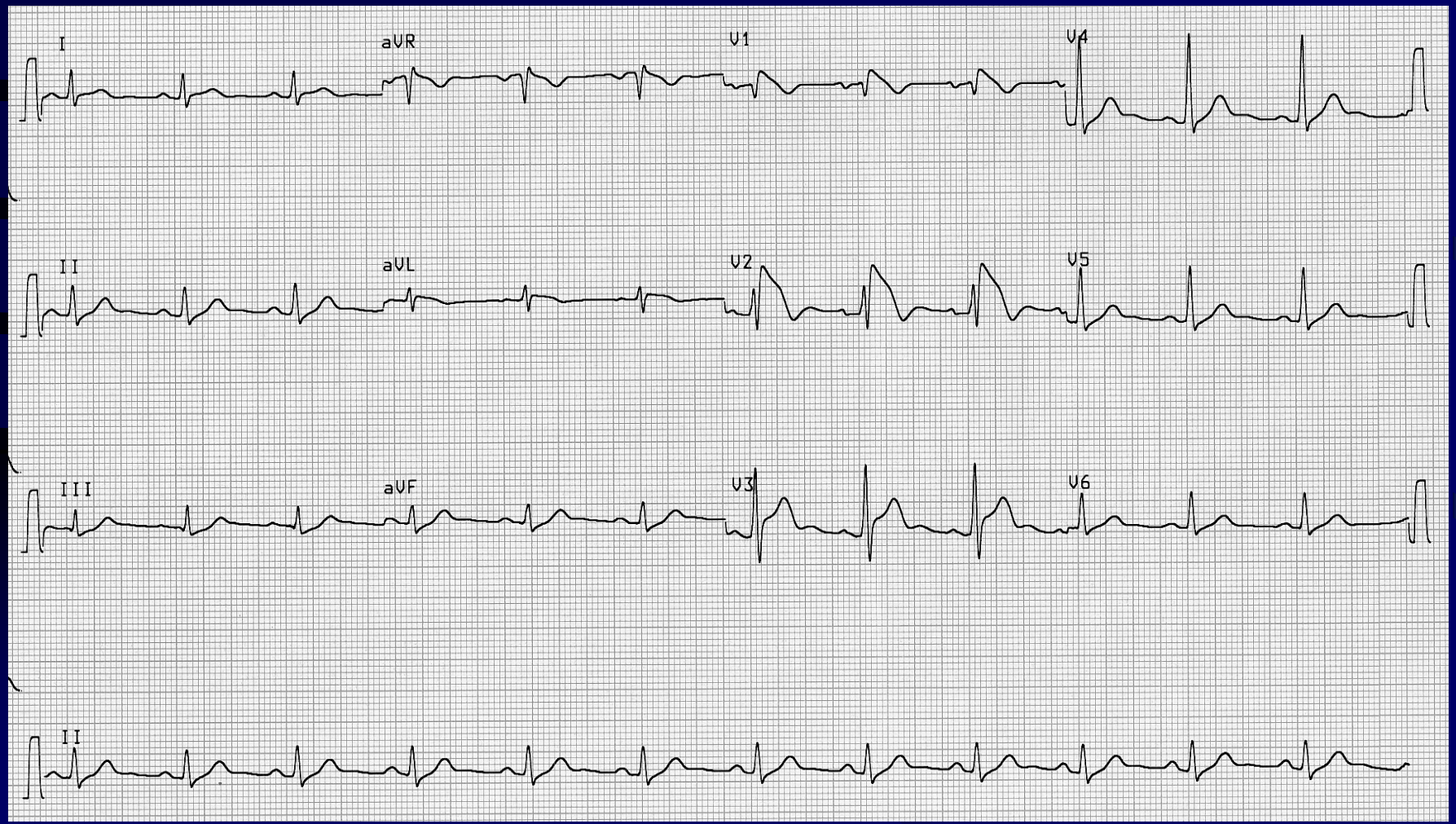



A
L1
aVR
V1
V4
L2
aVL
V2
V5
L3
aVF
V3
V6
B
L1
aVR
V1
V4
L2
aVL
V2
V5
L3
aVF
V3
V6

Long QT syndrome



Sindrome di Brugada



L'Italia e lo screening… Quali risultati sono stati ottenuti in 30 anni?

L'incidenza annuale di morte improvvisa è diminuita dell'89%.

Trends in Sudden Cardiovascular Death in Young Competitive Athletes After Implementation of a Preparticipation Screening Program

Domenico Corrado, MD, PhD
Cristina Basso, MD, PhD
Andrea Pavei, MD
Pierantonio Michieli, MD, PhD
Maurizio Schiavon, MD
Gaetano Thiene, MD

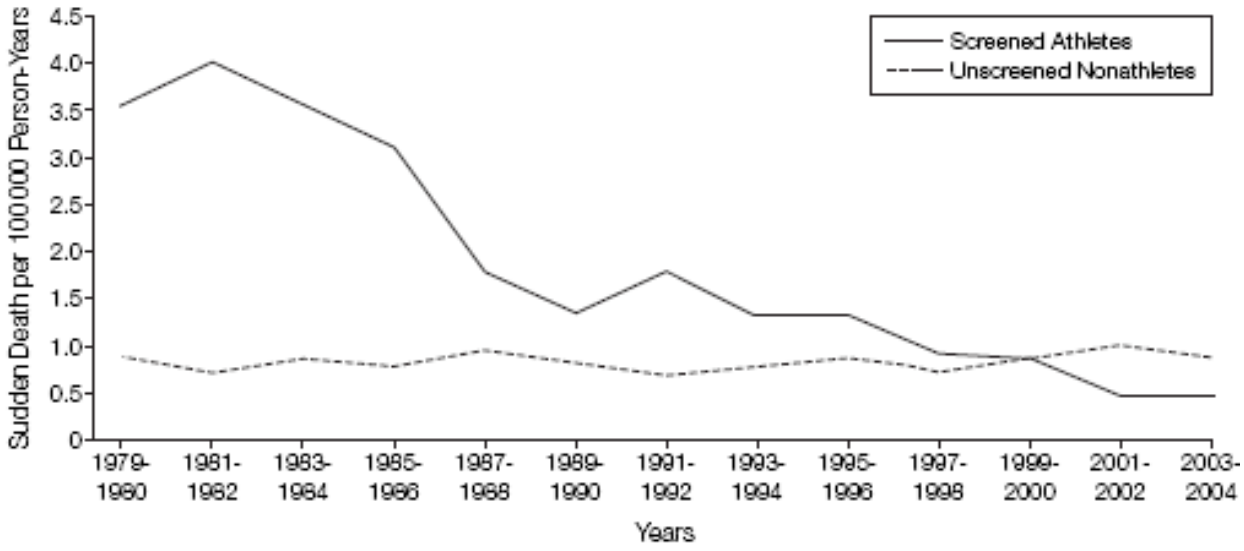
Context A nationwide systematic preparticipation athletic screening was introduced in Italy in 1982. The impact of such a program on prevention of sudden cardiovascular death in the athlete remains to be determined.

Objective To analyze trends in incidence rates and cardiovascular causes of sudden death in young competitive athletes in relation to preparticipation screening.

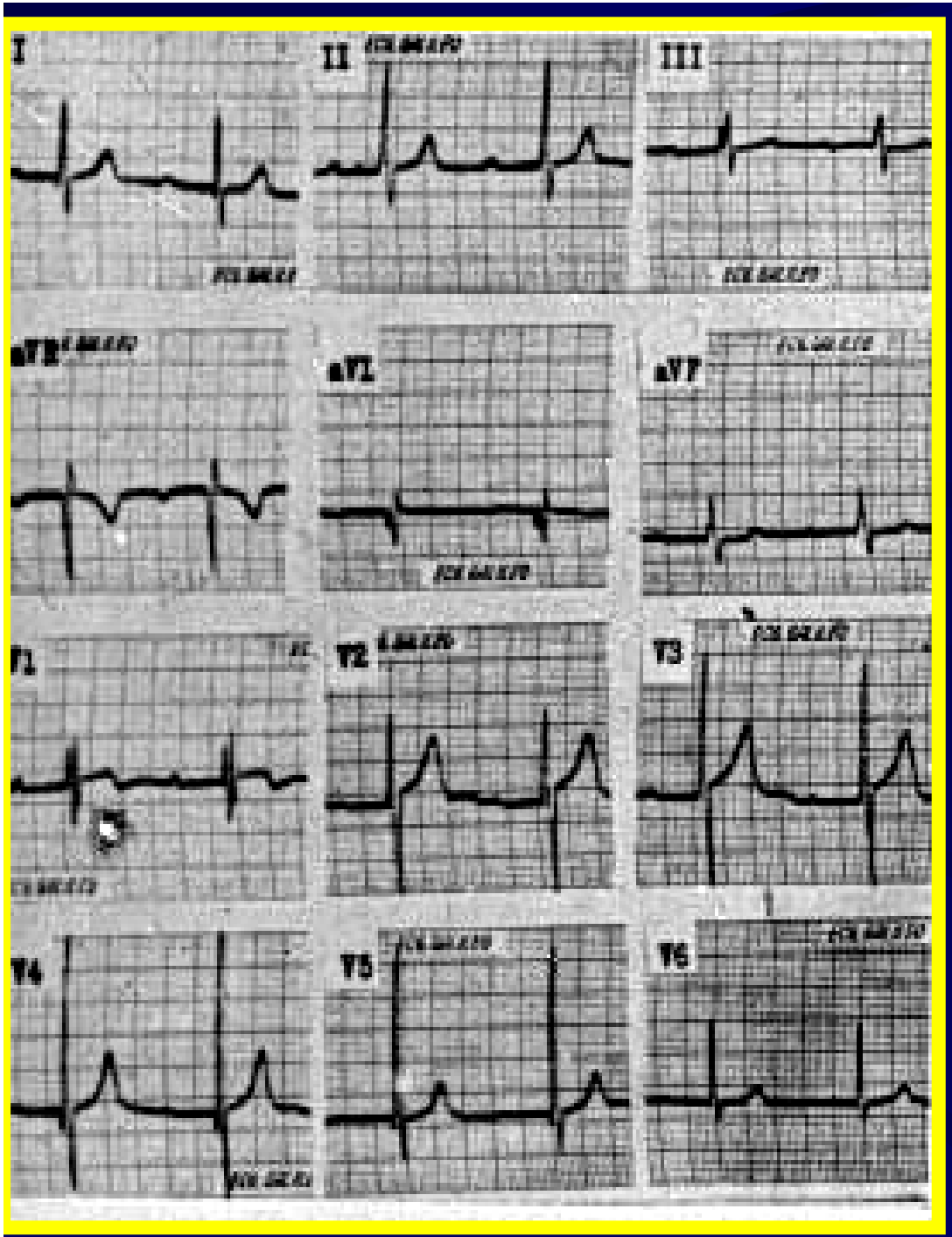
Design, Setting, and Participants A population-based study of trends in sudden cardiovascular death in athletic and nonathletic populations aged 12 to 35 years in the Veneto region of Italy between 1979 and 2004. A parallel study examined trends in cardiovascular causes of disqualification from competitive sports in 42 386 athletes undergoing preparticipation screening at the Center for Sports Medicine in Padua (22 312 in the early screen-

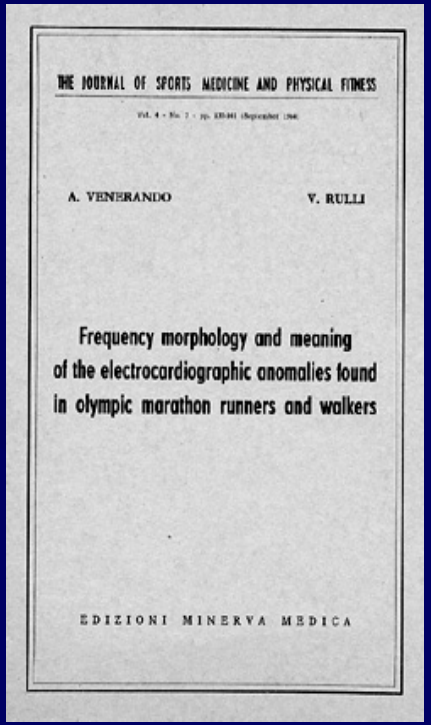
THE MAJORITY OF YOUNG ATHletes who die suddenly have

Figure. Annual Incidence Rates of Sudden Cardiovascular Death in Screened Competitive Athletes and Unscreened Nonathletes Aged 12 to 35 Years in the Veneto Region of Italy (1979-2004)



During the study period, the annual incidence of sudden cardiovascular death decreased by 89% in screened athletes (*P* for trend <.001). In contrast, the incidence rate of sudden cardiovascular death did not demonstrate consistent changes over time in unscreened nonathletes.




THE JOURNAL OF SPORTS MEDICINE AND PHYSICAL FITNESS

A. VENERANDO V. RULLI

Frequency morphology and meaning of the electrocardiographic anomalies found in olympic marathon runners and walkers

EDIZIONI MINERVA MEDICA

Clinical Significance of Abnormal Electrocardiographic Patterns in Trained Athletes

Antonio Pelliccia, MD; Barry J. Maron, MD; Franco Culasso, PhD; Fernando M. Di Paolo, MD; Antonio Spataro, MD; Alessandro Biffi, MD; Giovanni Caselli, MD; Paola Piovano, MD

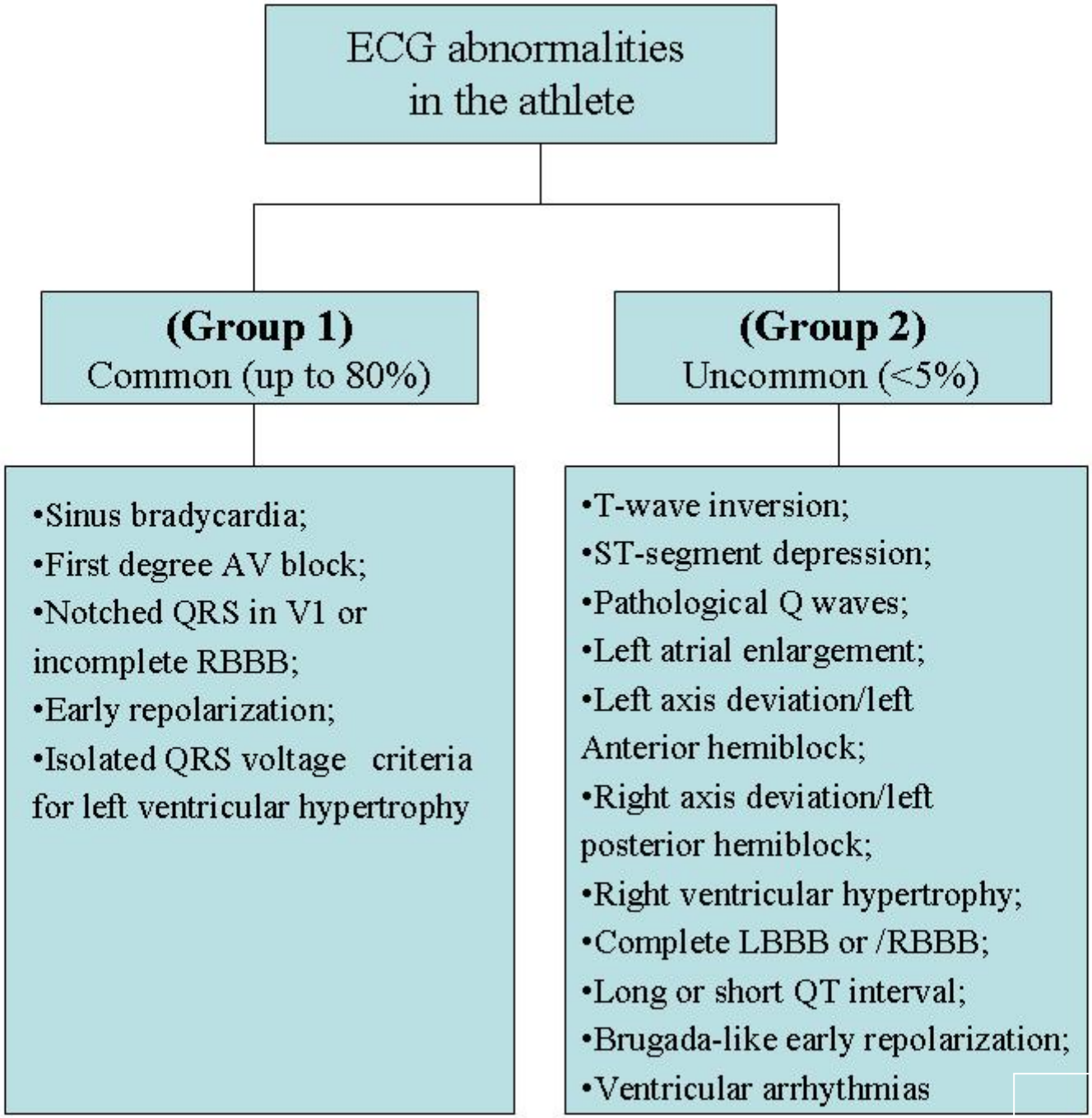
Background—The prevalence, clinical significance, and determinants of abnormal ECG patterns in trained athletes remain largely unresolved.

Methods and Results—We compared ECG patterns with cardiac morphology (as assessed by echocardiography) in 1005 consecutive athletes (aged 24±6 years; 75% male) who were participating in 38 sporting disciplines. ECG patterns were distinctly abnormal in 145 athletes (14%), mildly abnormal in 257 (26%), and normal or with minor alterations in 603 (60%). Structural cardiovascular abnormalities were identified in only 53 athletes (5%). Larger cardiac dimensions were associated with abnormal ECG patterns: left ventricular end-diastolic cavity dimensions were 56.0±5.6, 55.4±5.7, and 53.7±5.7 mm ($P<0.001$) and maximum wall thicknesses were 10.1±1.4, 9.8±1.3, and 9.3±1.4 mm ($P<0.001$) in distinctly abnormal, mildly abnormal, and normal ECGs, respectively. Abnormal ECGs were also most associated with male sex, younger age (<20 years), and endurance sports (cycling, rowing/canoeing, and cross-country skiing). A subset of athletes (5% of the 1005) showed particularly abnormal or bizarre ECG patterns, but no evidence of structural cardiovascular abnormalities or an increase in cardiac dimensions.

Conclusions—Most athletes (60%) in this large cohort had ECGs that were completely normal or showed only minor alterations. A variety of abnormal ECG patterns occurred in 40%; this was usually indicative of physiological cardiac remodeling. A small but important subgroup of athletes without cardiac morphological changes showed striking ECG abnormalities that suggested cardiovascular disease; however, these changes were likely an innocent consequence of long-term, intense athletic training and, therefore, another component of athlete heart syndrome. Such false-positive ECGs represent a potential limitation to routine ECG testing as part of preparticipation screening. (***Circulation.*** **2000;102:278-284.)**

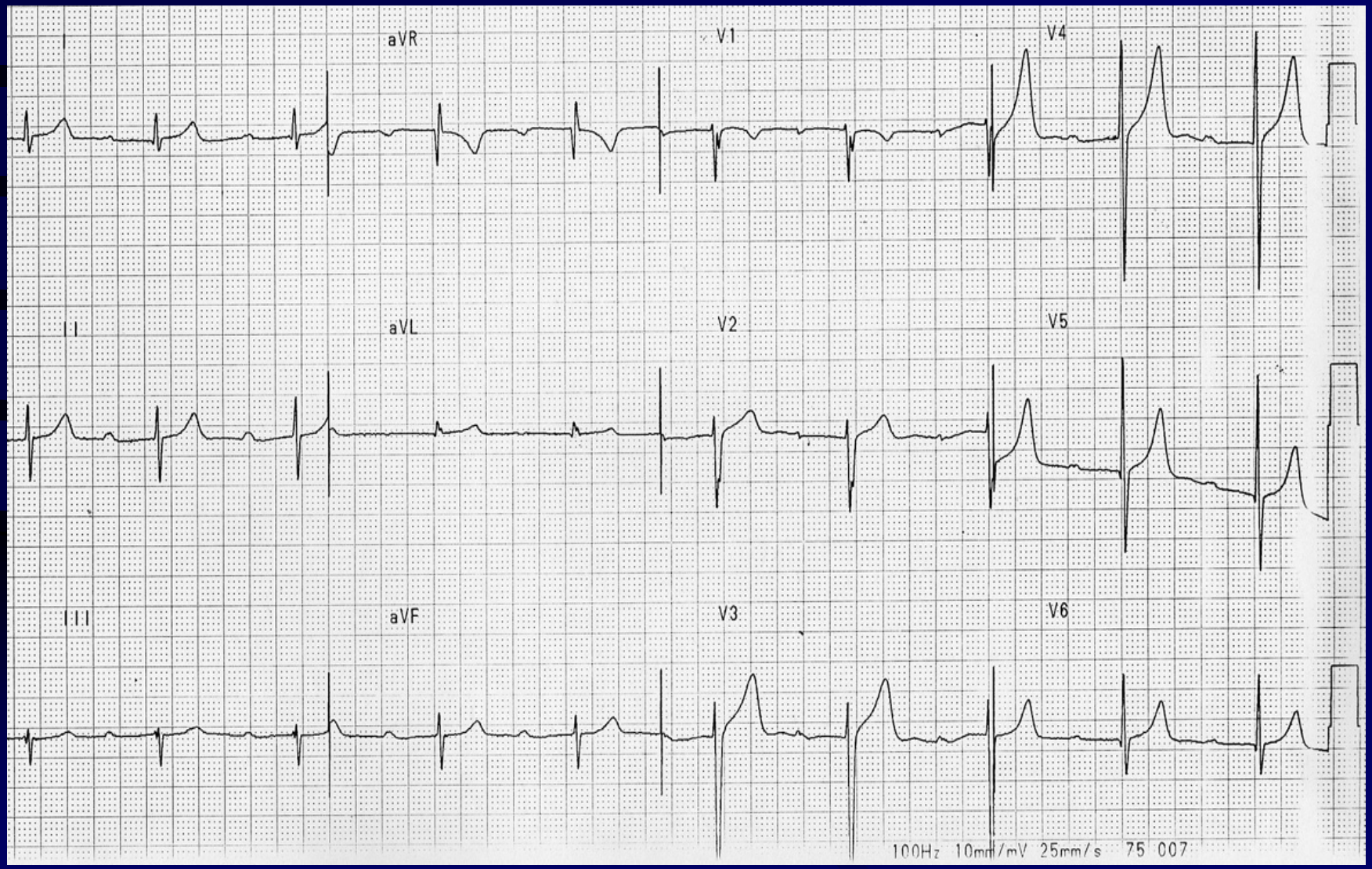
Key Words: athlete's heart ■ 12-lead ECG ■ echocardiography ■ screening for cardiovascular diseases

ECOCARDIOGRAMMA

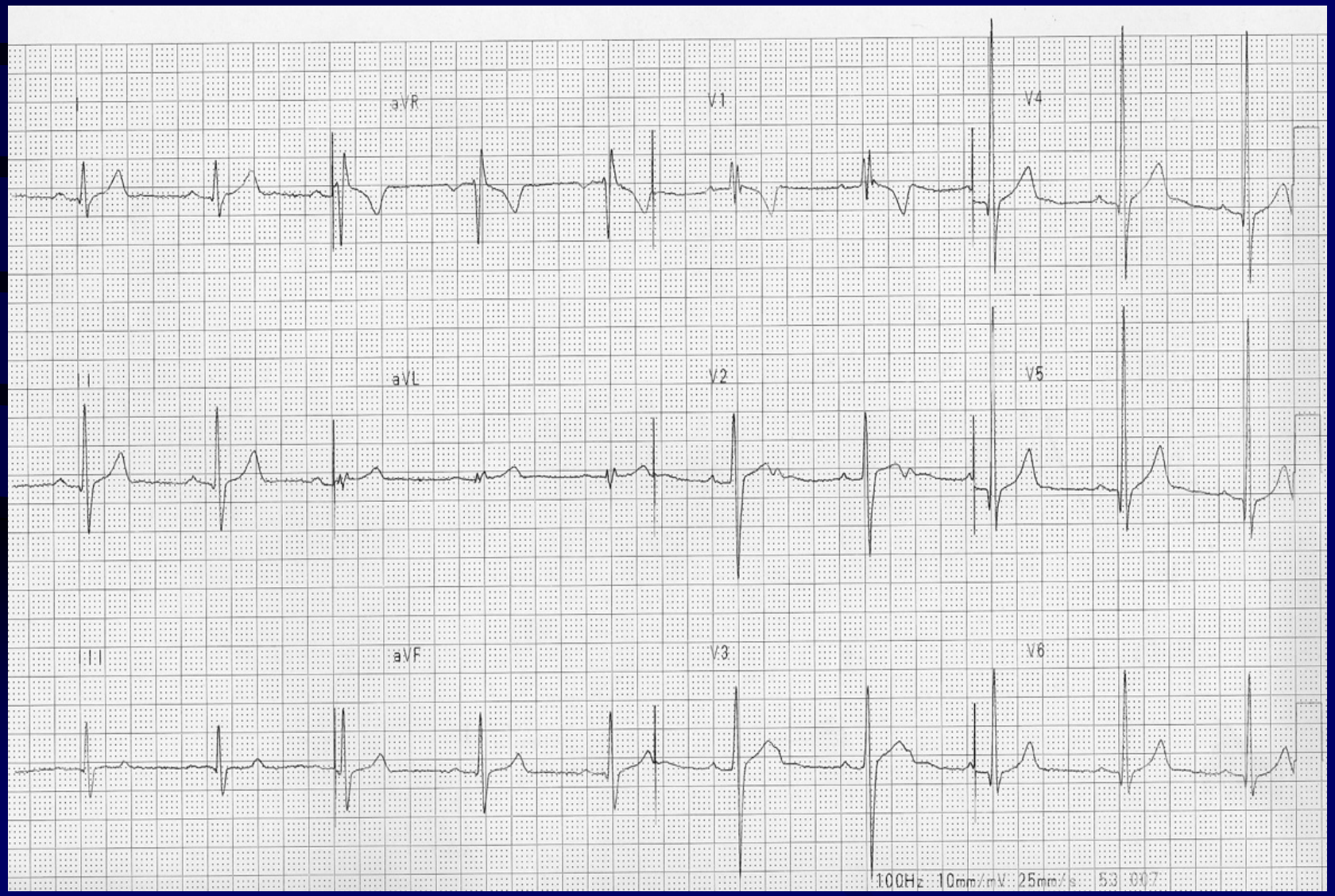


Domenico Corrado

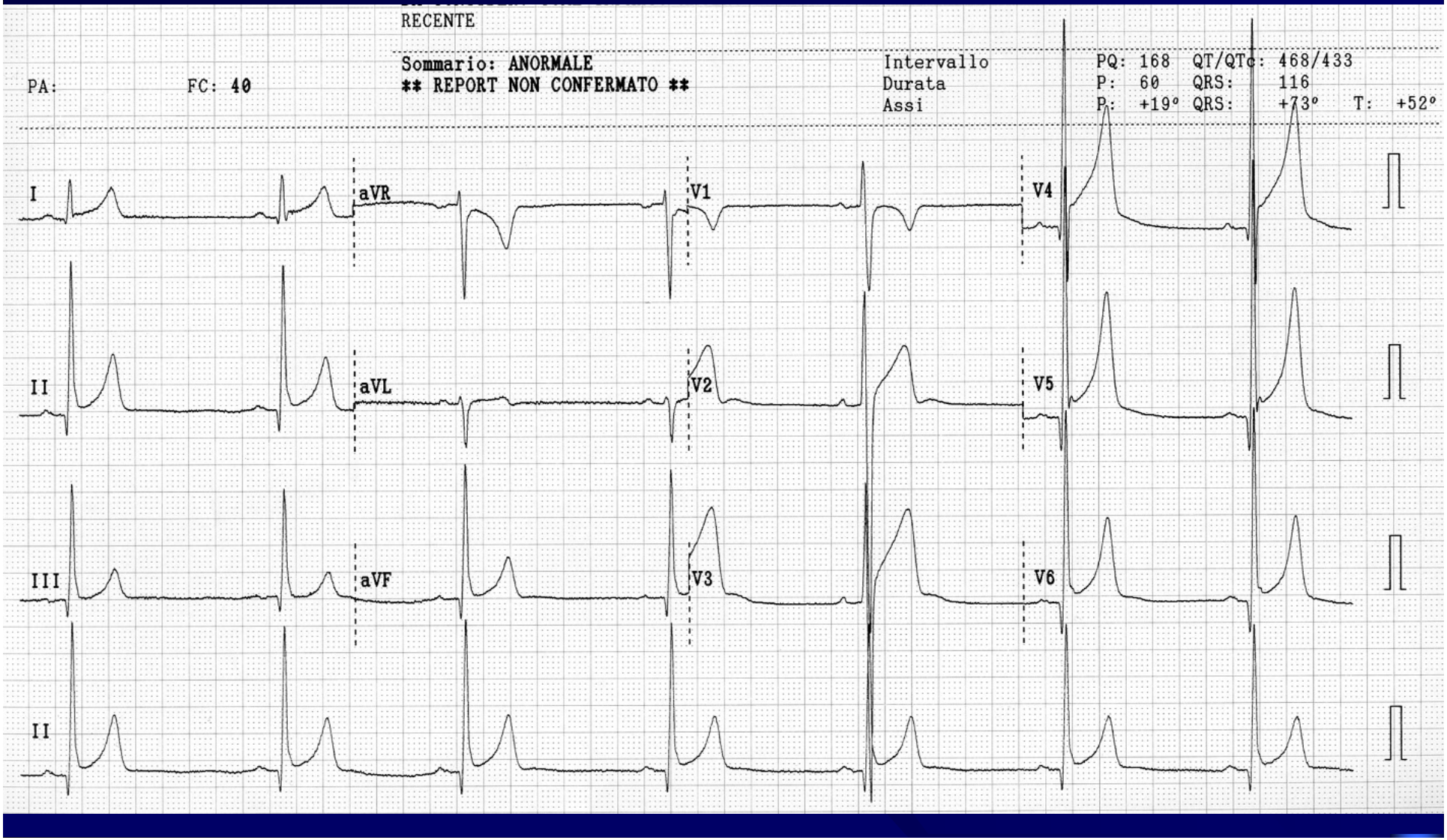
BAV I grado

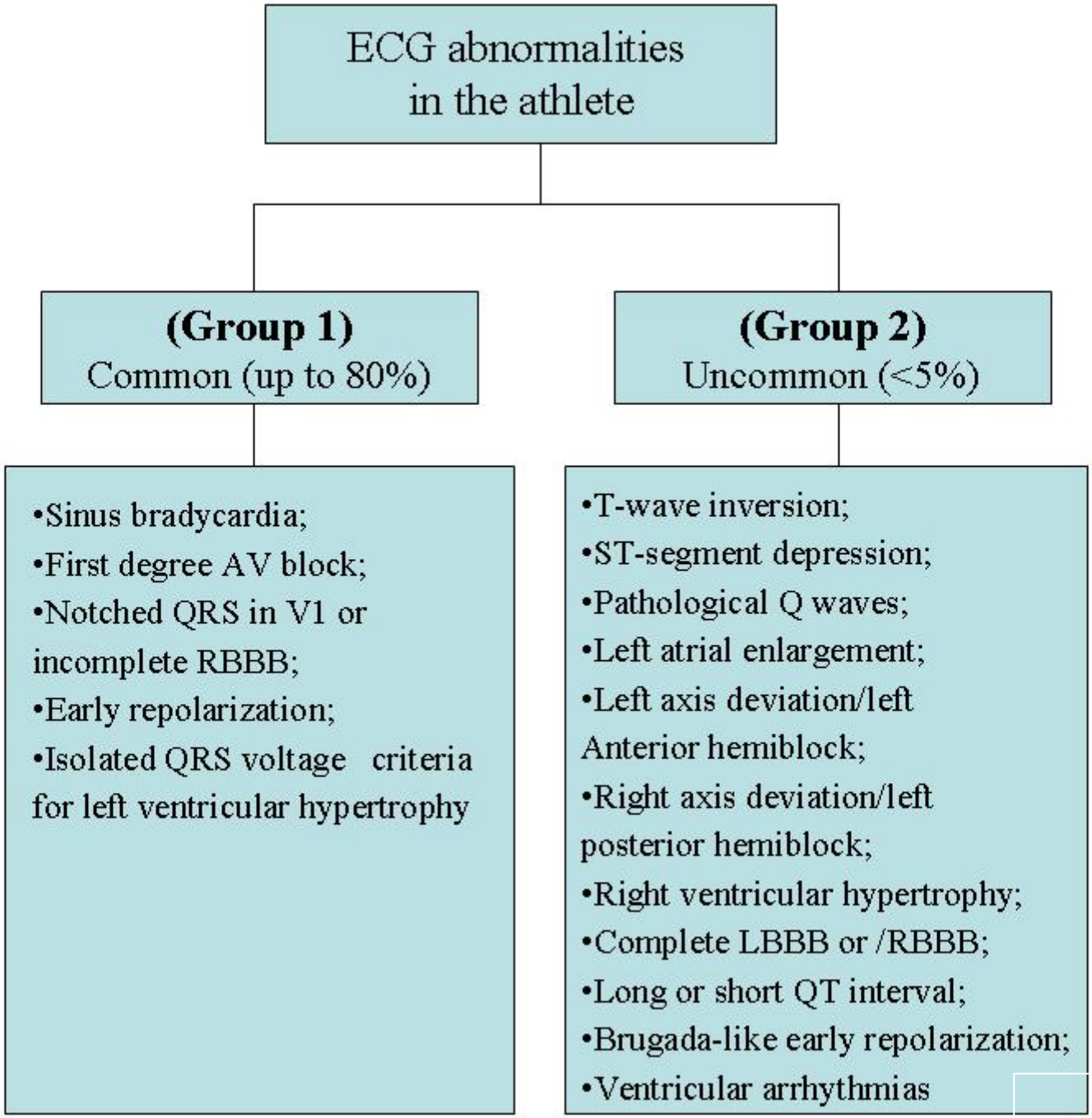


BBDx incompleto



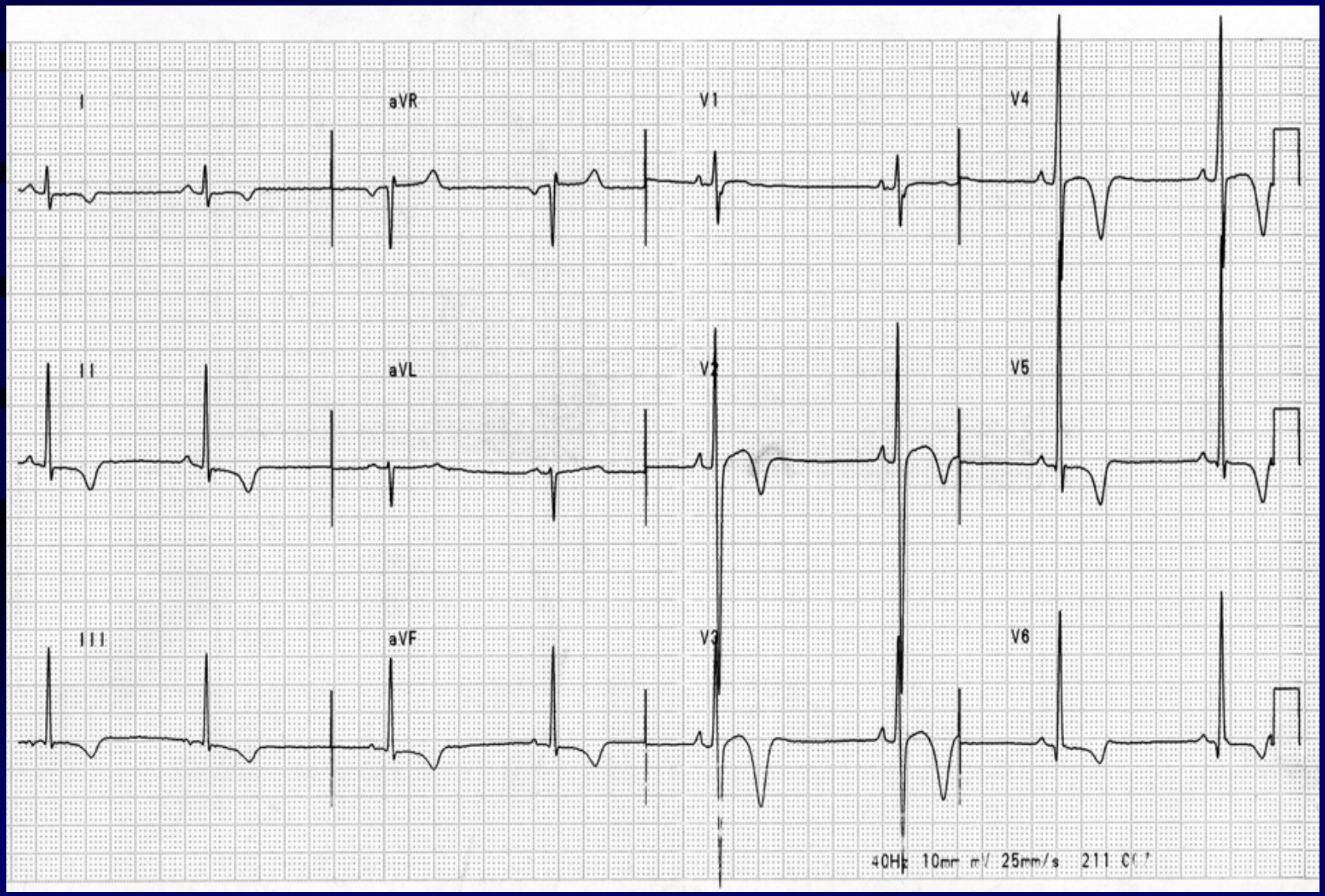
Early repolarization pattern



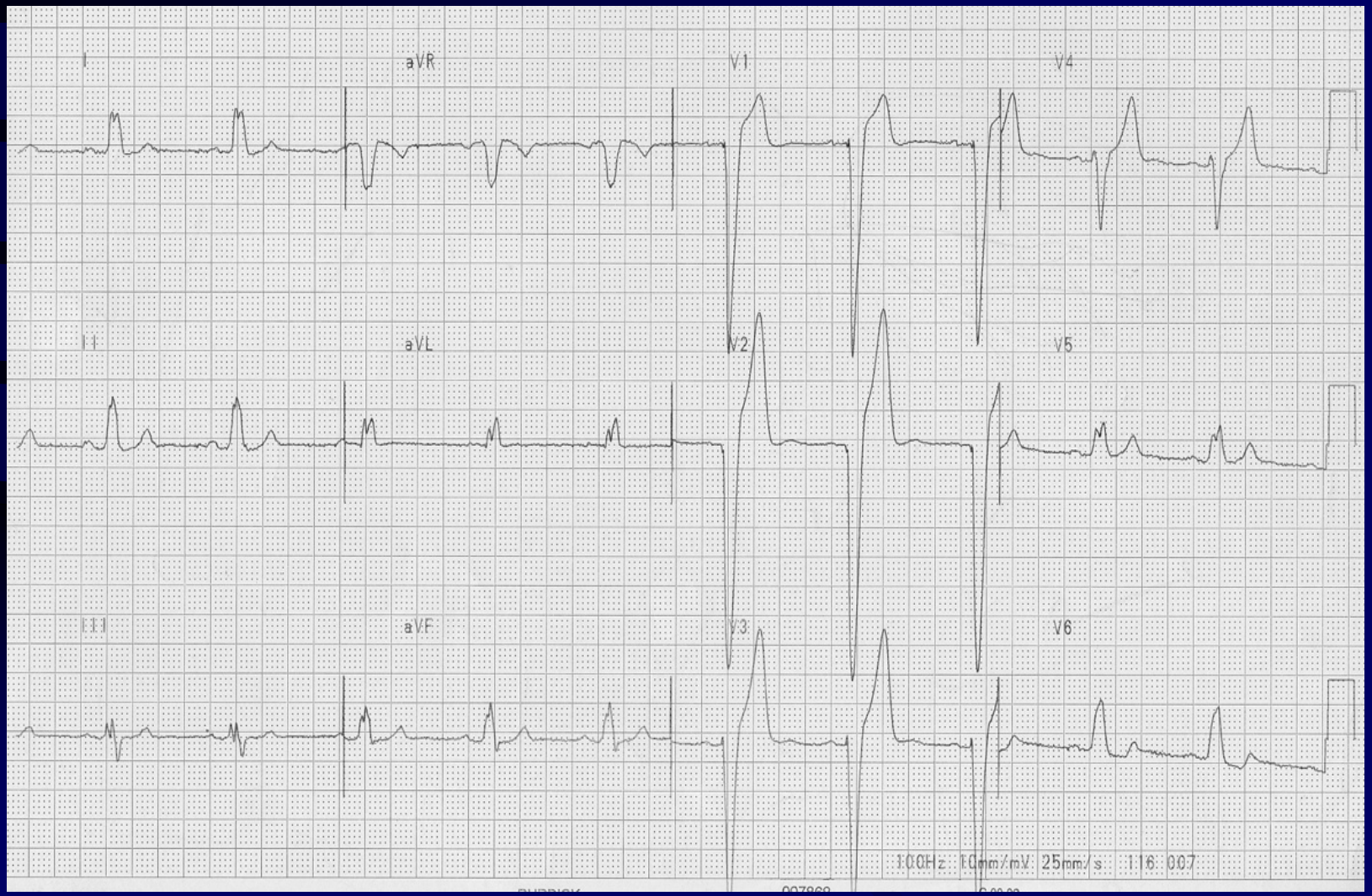


Domenico Corrado

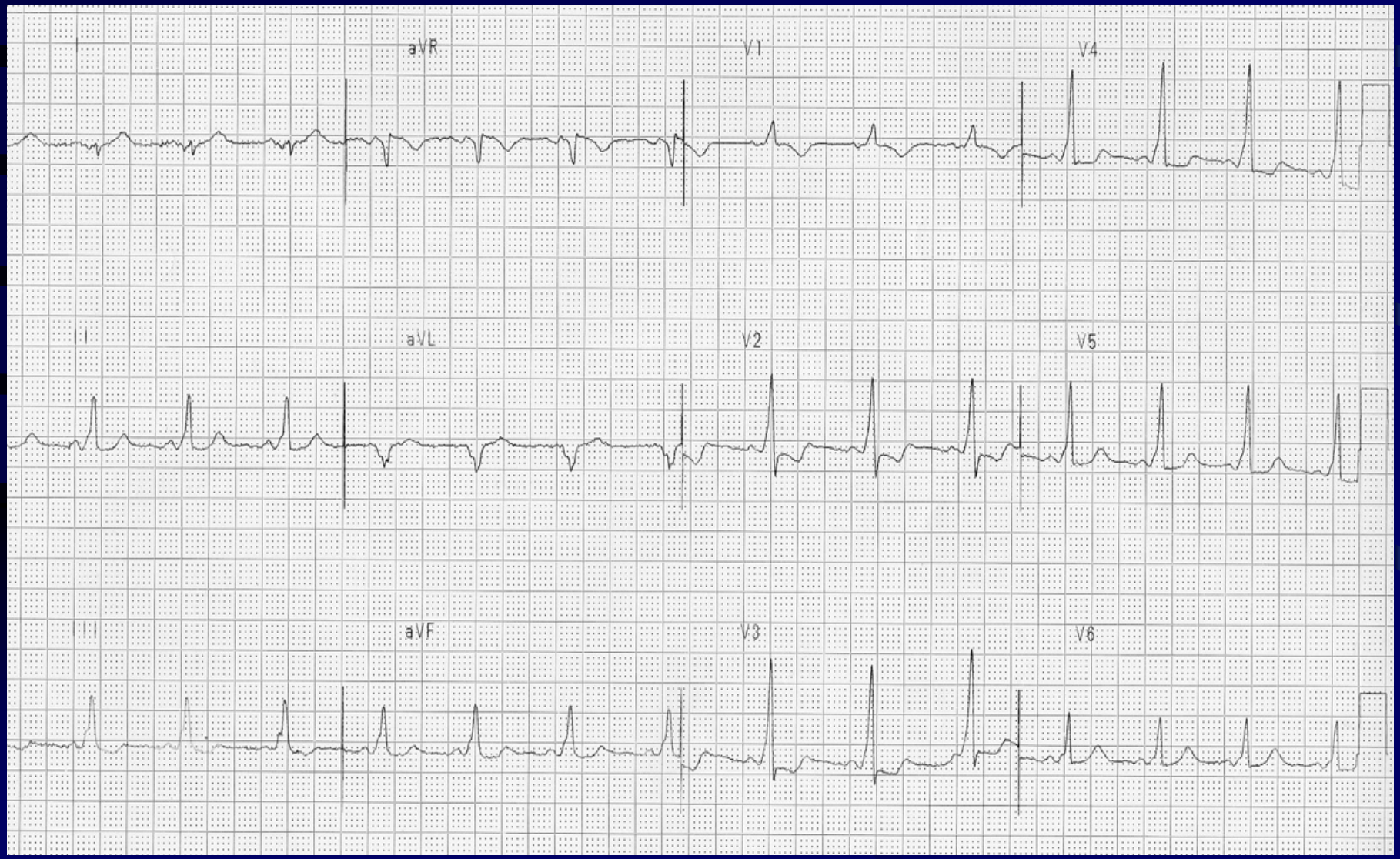
Inverted T waves



BBSx



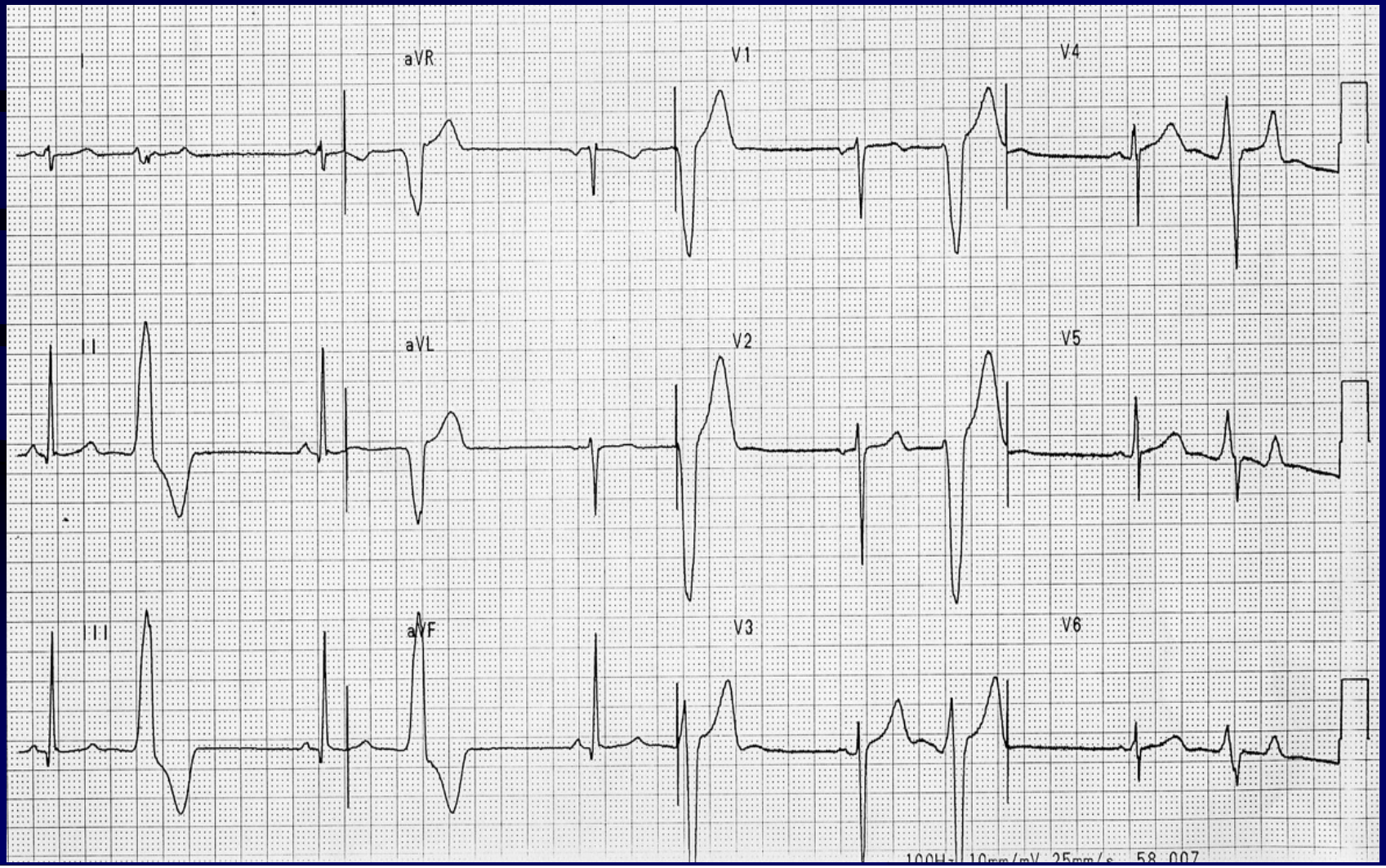
WPW



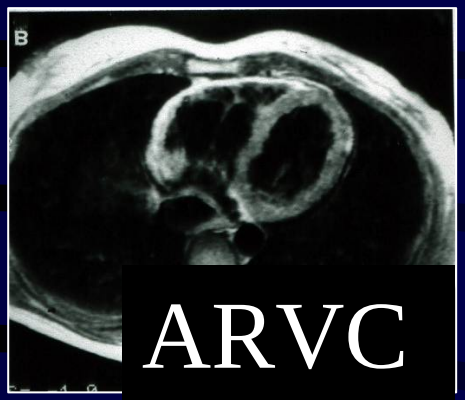
Aritmie

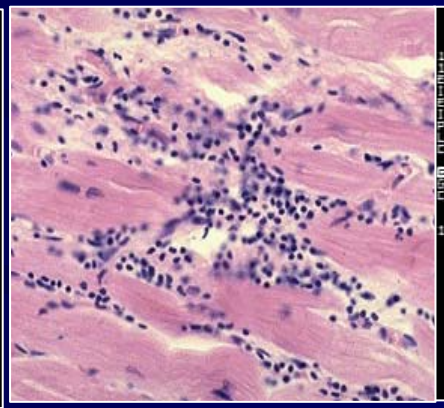
- Significato clinico dei battiti prematuri ventricolari
- Utilità del disallenamento
- Nuove sindrome aritmiche e canalopatie (QT corto, TV catecolaminergica)
- Il WPW asintomatico nei giovani
- Efficacia e limiti dell'ablazione (e ripresa agonistica)
- Criteri di idoneità nei portatori di device

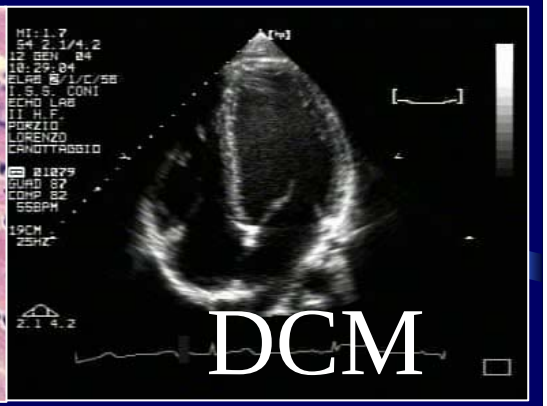
Extrasistolia ventricolare



BEV

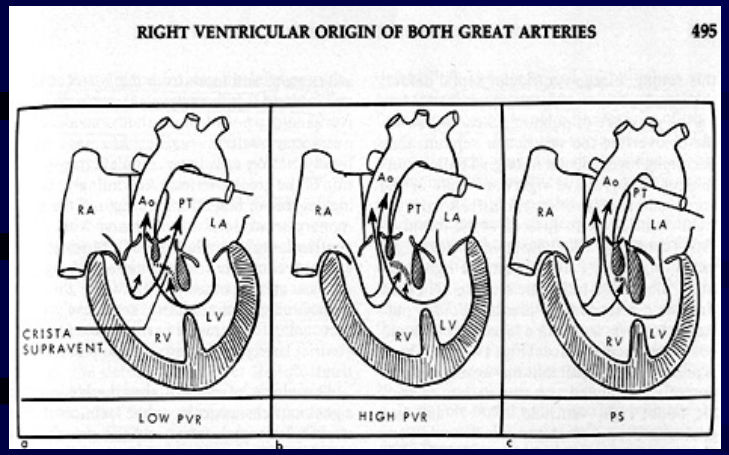


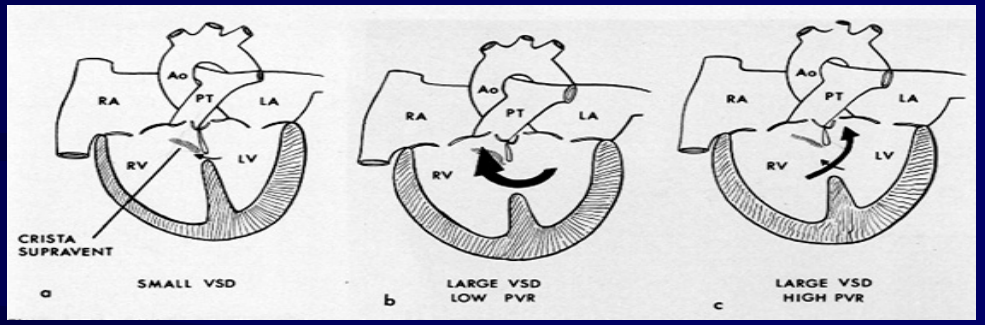


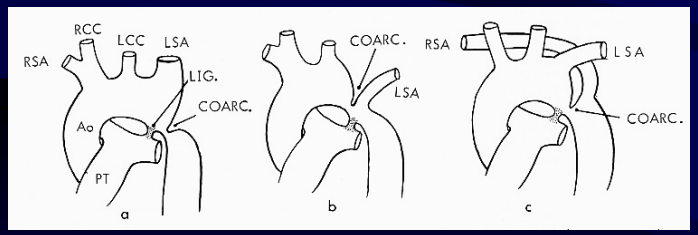


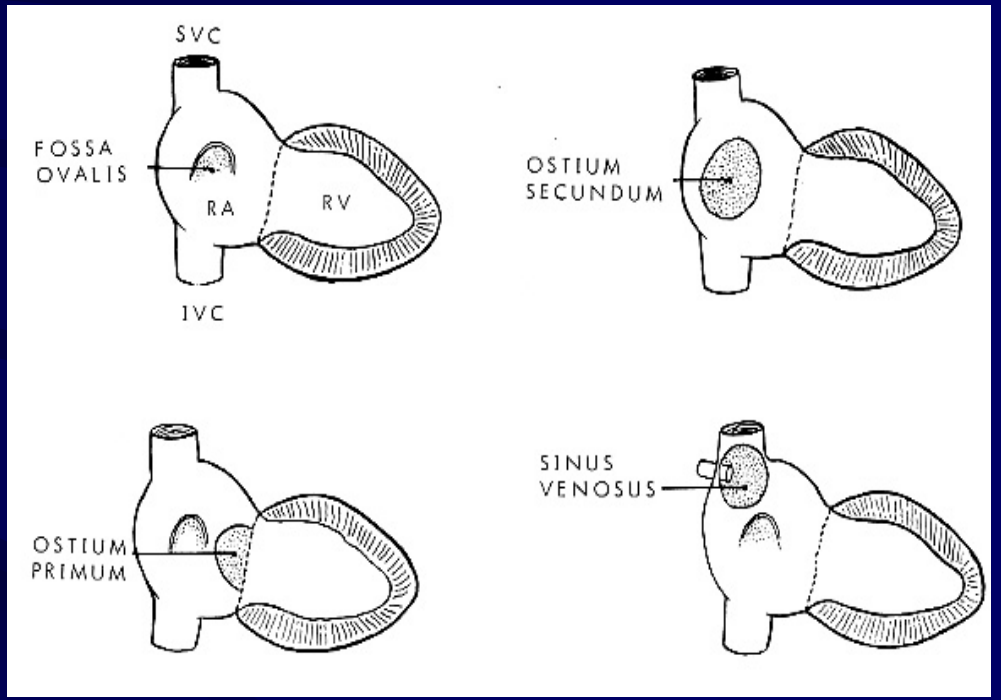
PRESENZA O ASSENZA DI CARDIOPATIA

CARDIOPATIE CONGENITE









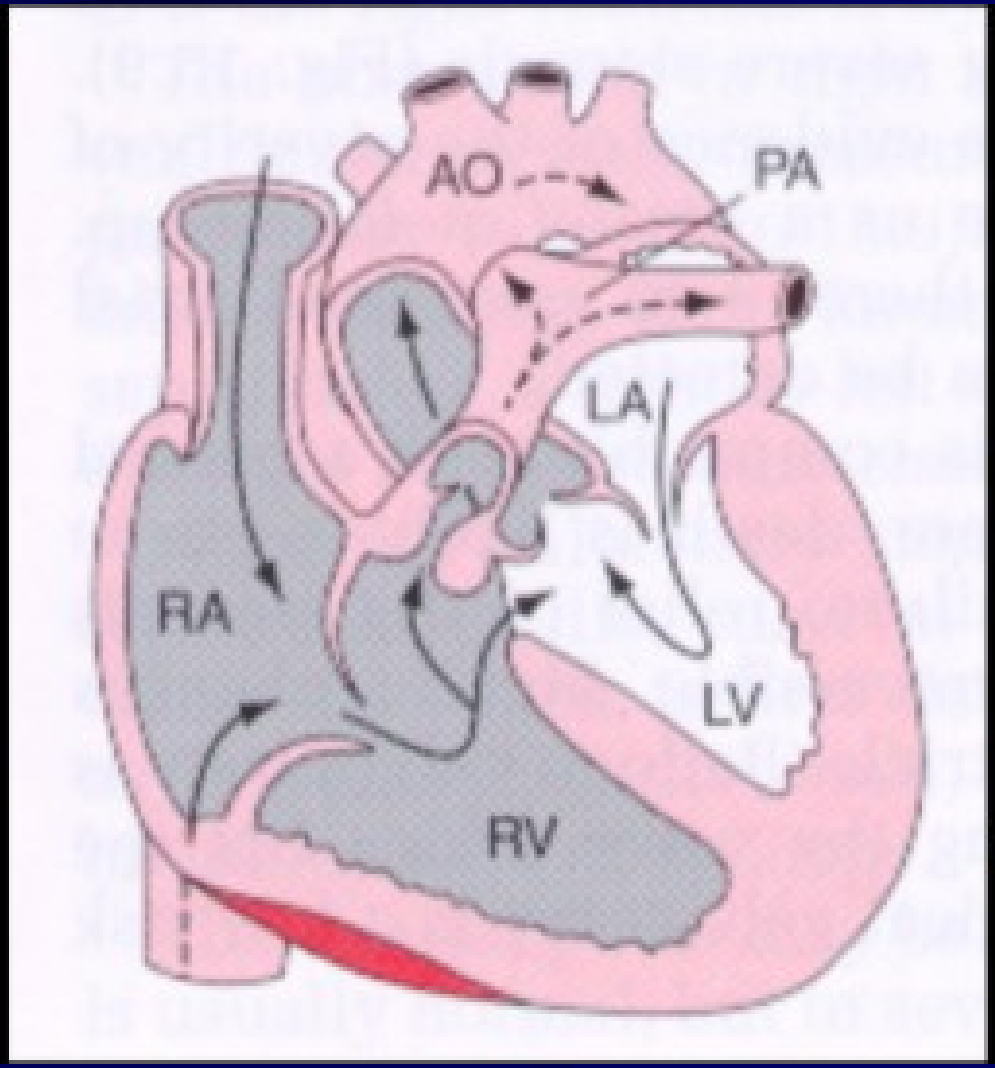
TETRALOGIA DI FALLOT

1

Difetto interventricolare

2

Stenosi Valvola polmonare



3

Aorta a cavaliere

4

Ipertrofia ventricolare destra

TETRALOGIA DI FALLOT

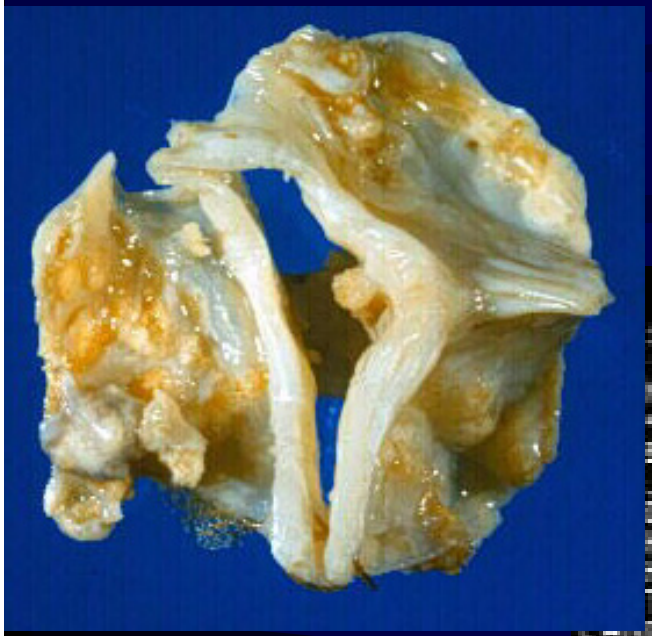
L'intervento assai precoce ha migliorato la prognosi a medio-lungo termine

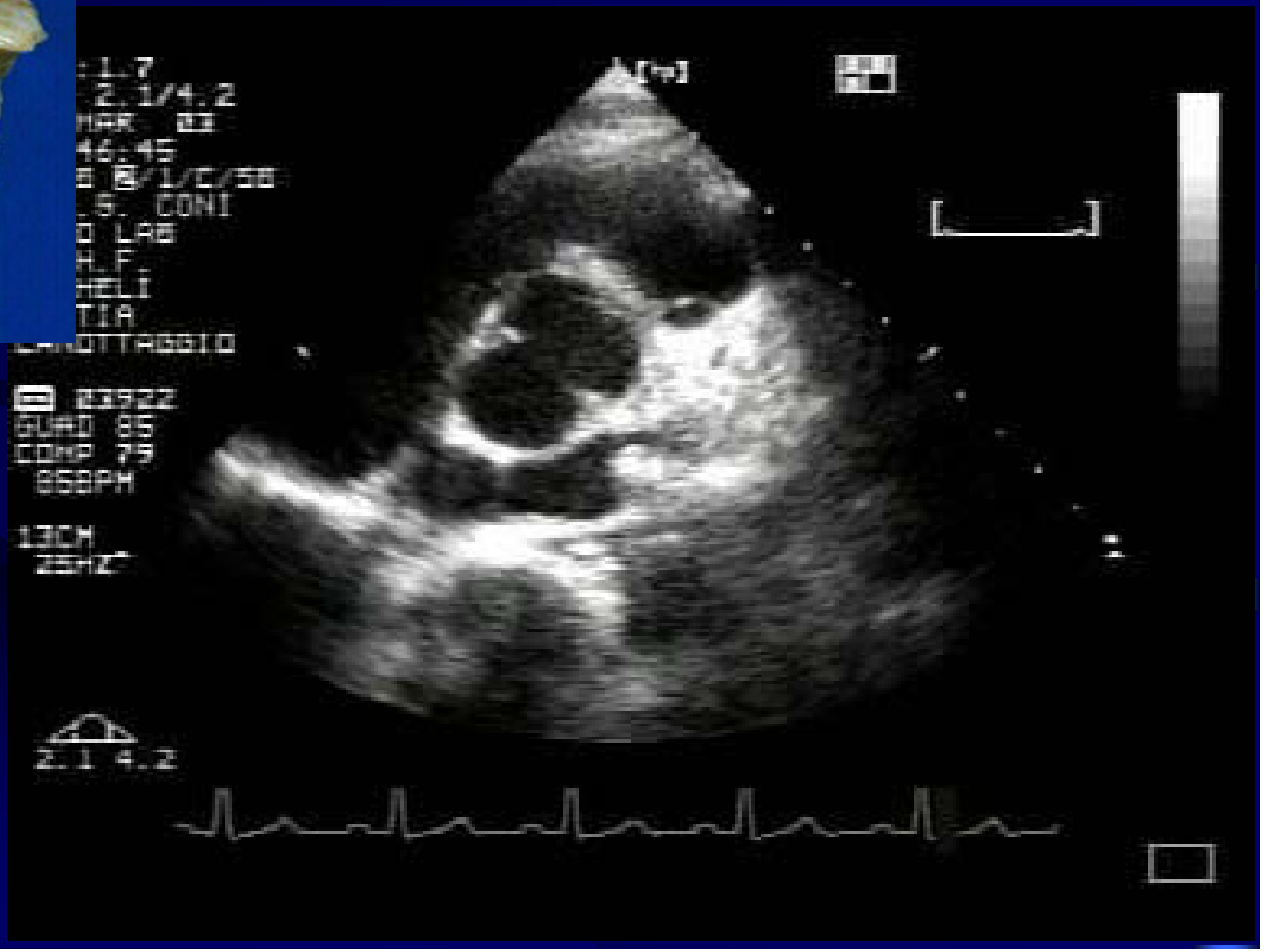
***I pazienti operati, purchè vengano rispettati alcuni criteri, possono partecipare a sport ad impegno CV minimo-moderato del* Gruppo A (Bocce, Golf, sport di tiro, Bowling, Carling, etc)**

In casi singoli in cui vengano rispettati i criteri di idoneità e il test cardio-polmonare risulti normale possono essere concesse alcune attività agonistiche del gruppo B (sport equestri, vela, pesca sportiva)

- **OBBLIGO DI CONTROLLO SEMESTRALE**

AORTA BICUSPIDE (STENOSI AORTICA)





Dopo correzione mediante valvuloplastica o portatori di homograft o protesi biologica

IDONEI

I soggetti sottoposti ad intervento di Ross sport ad impegno CV minimo-moderato:

- **Gruppo A e B (sport equestri, vela)**
- **OBBLIGO DI CONTROLLO SEMESTRALE**

GRAZIE