ARITMIE ED ABLAZIONE

GLI SVENIMENTI DEL Sig. MONALITO

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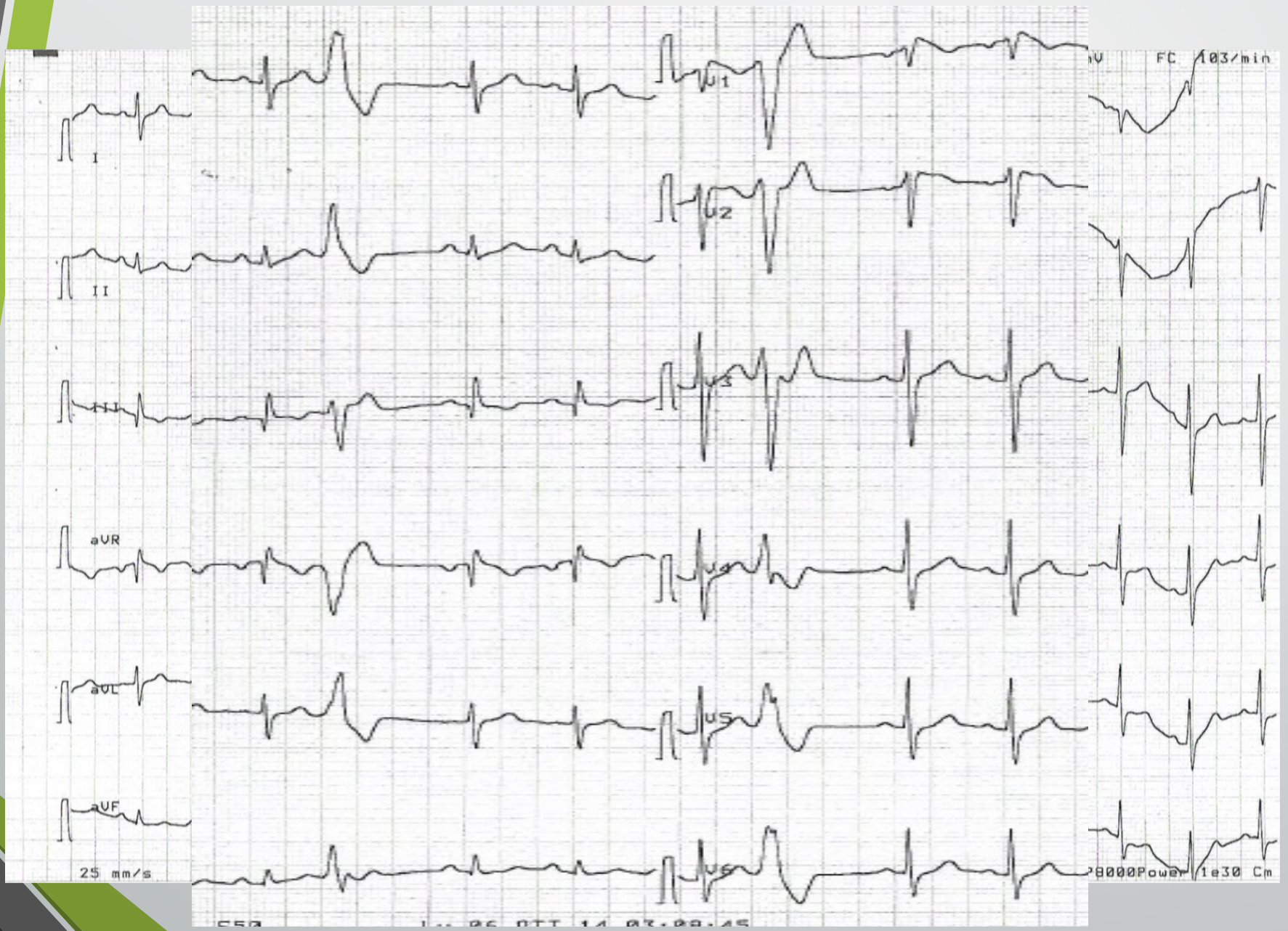
Giunge in studio paziente maschio di 38 anni normoteso, non familiarità per cardiopatia nè precedenti patologici remoti, riferendo un episodio sincopale sul posto di lavoro in ortostatismo preceduto da fugaci prodromi

Clinicamente iperpiressia da sindrome flogistica alte vie respiratorie da 3 giorni in assenza di terapia

Avete la possibilità di eseguire un ECG :


I
II
III
aVR
aVL
aVF
V1
V2
V3
V4
V5
V6
25 mm/s
FC 103/min

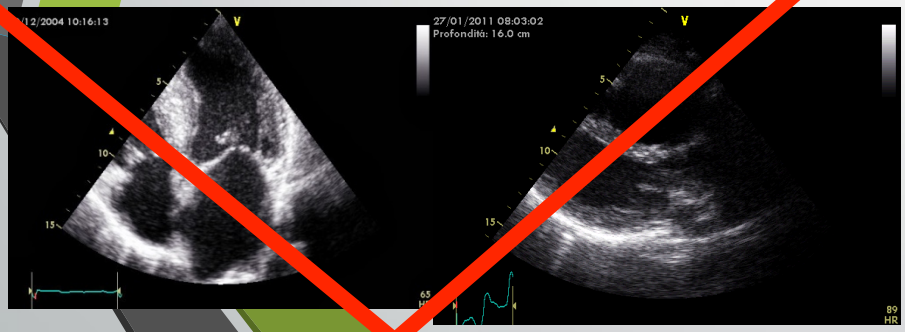
primo snodo

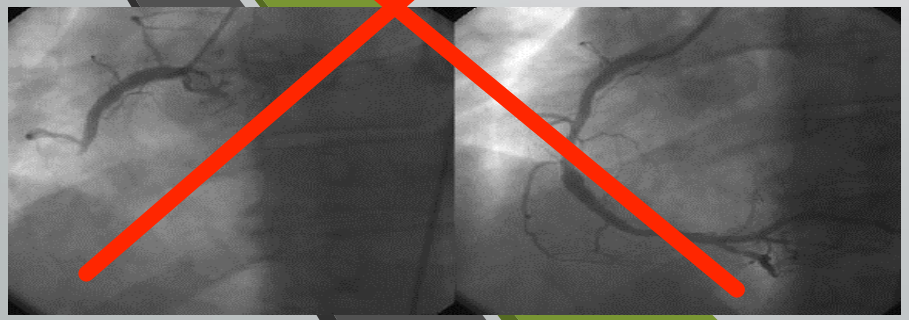
- Ipotesi 1 sindrome coronarica acuta sopra ST
- Ipotesi 2 sincope ipotensiva ortostatica in contesto flogistico
- Ipotesi 3 sincope aritmica slatentizzata da extrasistolia ventricolare

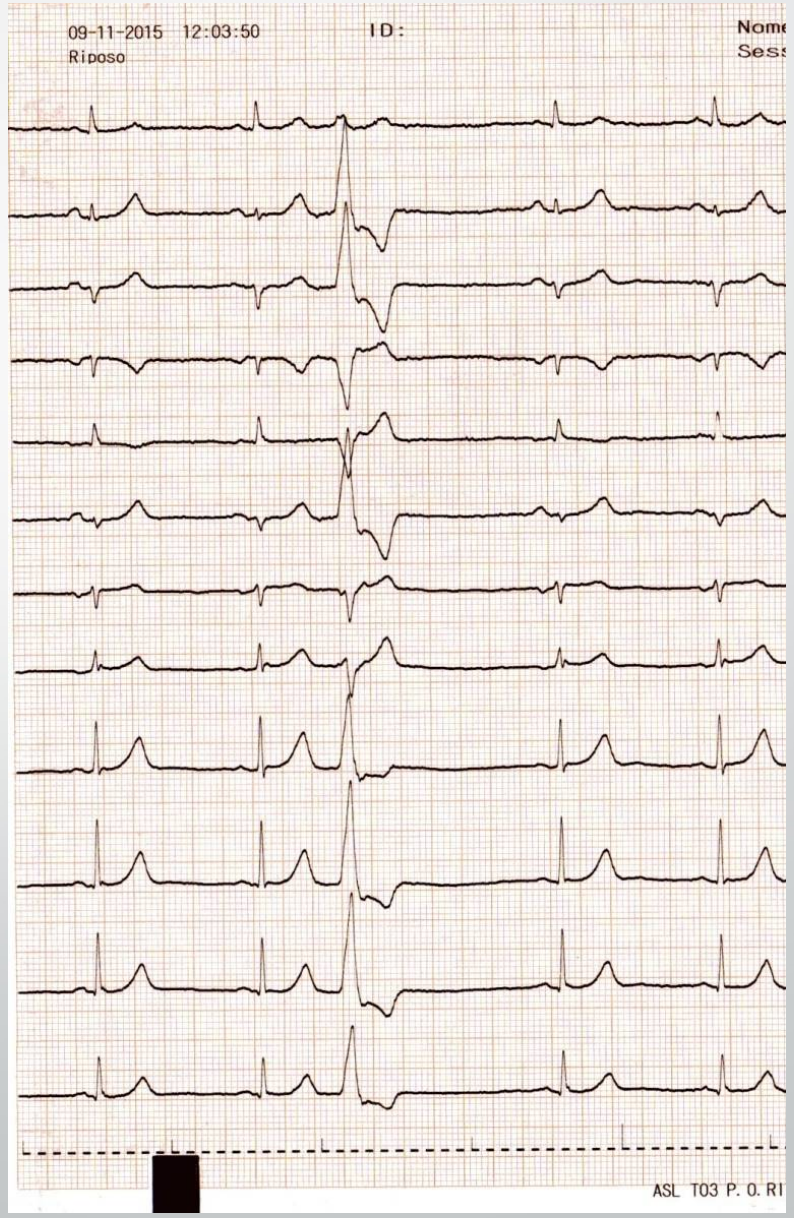
Le extrasistoli ventricolari sono sempre un indicatore prognostico negativo?

NO se…

- Rare
- Monomorfe
- Non precoci
- Isolate
- Assenza di cardiopatia strutturale/ aritmogena

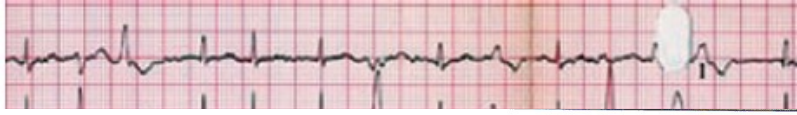


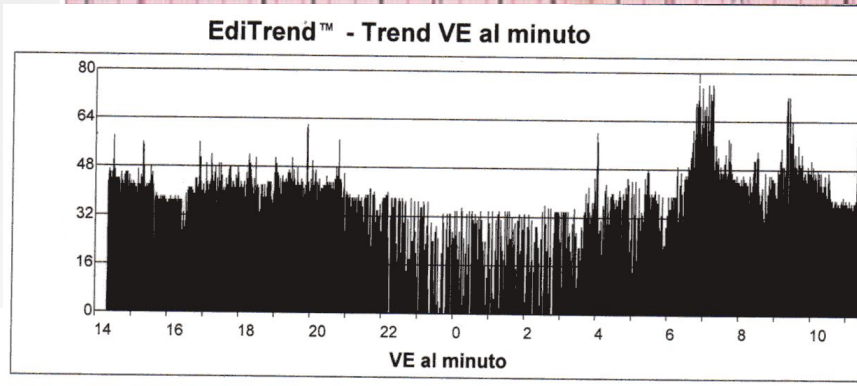




Potenzialmente ‘’ non benigne’’ …

- Polimorfe
- Numerose
- Fenomeni ripetitivi





Riepilogo

Numero Referto	: 8412037E10B3200	Ora Inizio	: 14.20.00	Battiti Totali	: 106560
Data Test	: 02/02/2017	Ore Analizzate	: 21 : 10 : 55	Battiti sconosciuti	: 76
Data Referto	: 03/02/2017	Artefatti	: 0 : 02 : 26	Altri Battiti	: 0
				Percent AFIB	: 0

Frequenza

Min	: 60 BPM alle	02.15.00-2	salve Bradicardia
Max	: 127 BPM alle	07.04.00-2	Piu lunga
Med	: 83 BPM		Freq. min.

Eventi frequenza dipendenti

	: 0		
	: 0	batt. alle	
	: 0	BPM alle	

Pause	: 0		
Piu lunga	: 10 sec	alle	

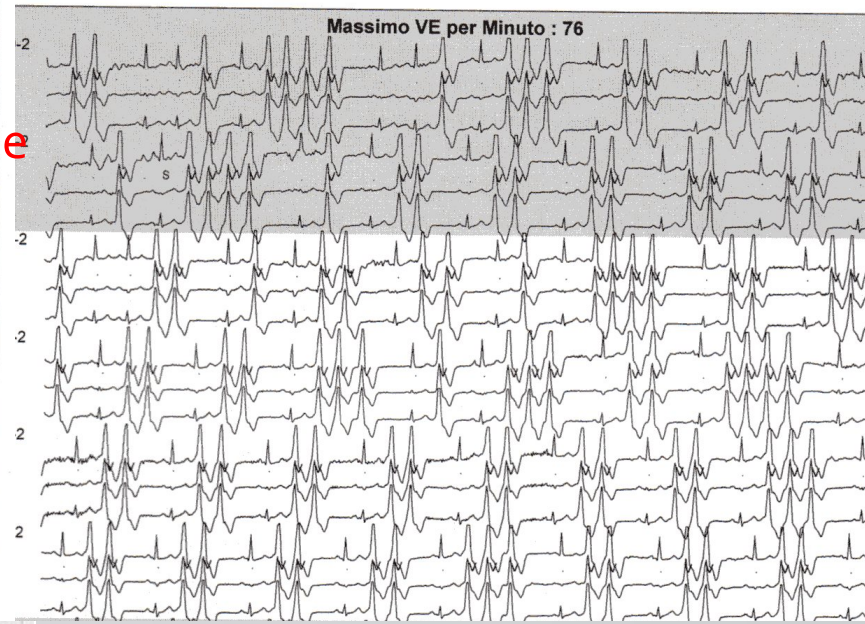
Eventi Ventricolari

Battiti Totali	: 45201	Coppie	: 2984		
% battiti	: 42,42	Triplette	: 678		
Forme	: 150	Salve bigemini	: 70		
Salve AIVR/IVR	: 3				
Piu lunga	: 3	batt. alle	18.18.07-1		
Freq. Min	: 84	BPM	20.57.22-1		
Salve Tachi V	: 1077				
Piu lunga	: 11	batt. alle	19.54.32-1		
Freq. Max	: 196	BPM	14.28.57-1		
VE/minuto max	: 76	batt. alle	06.52.00-2		
VE/ora max	: 3165	beatt.	07.00.00-2		
VE/ora medio	: 2152,4				
VE/1000	: 424,2				

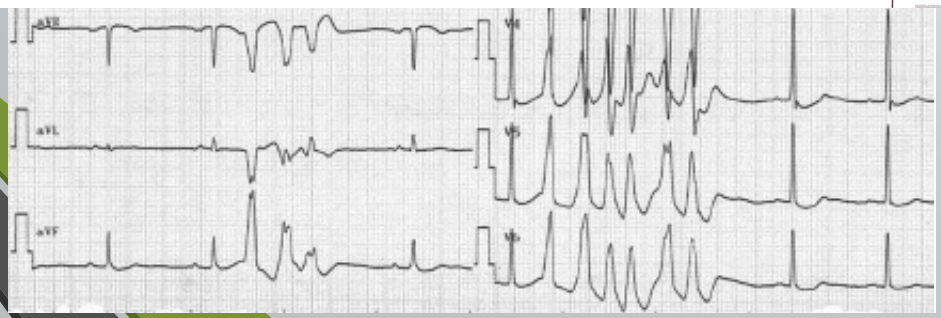
Eventi Sopraventricolari

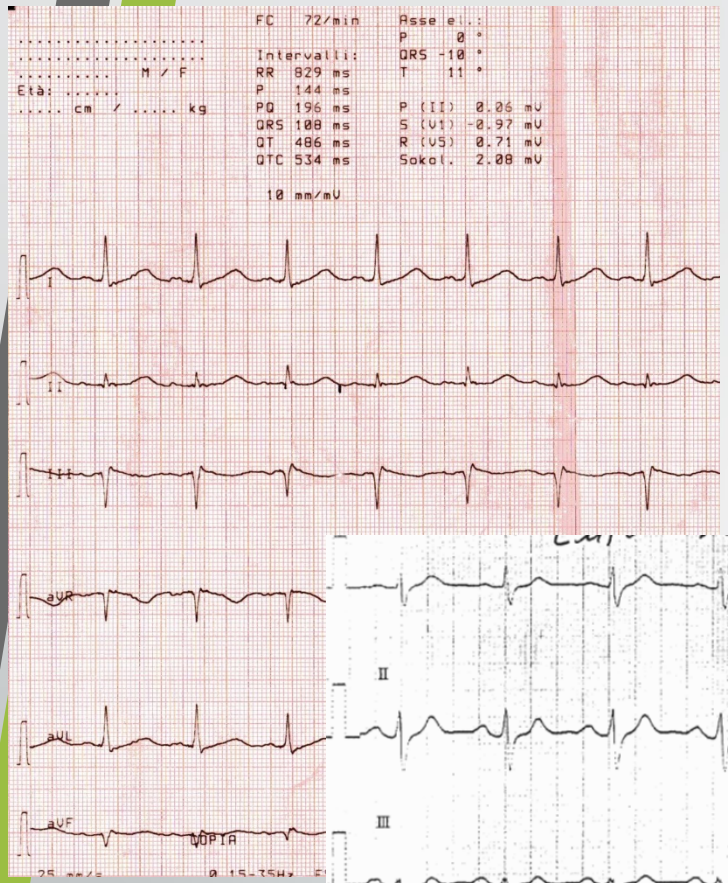
Battiti Totali	: 267	Coppie	: 0		
% battiti	: 0,27				
salve Tachi SV	: 1				
Piu lunga	: 4	batt. alle	10.03.21-2		
Freq. Max	: 128	BPM alle	10.03.21-2		
SVE/minuto max	: 7	batt. alle	18.36.00-1		
SVE/ora max	: 63	beatt.	18.00.00-1		
SVE/ora medio	: 13,7				
SVE/1000	: 2,7				

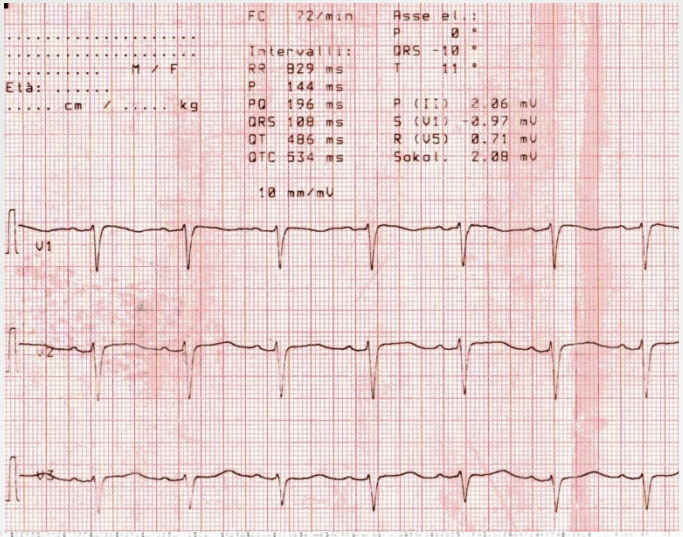
Impressioni e Note



Associate a segni di cardiopatia strutturale (ischemica, cardiomiopatia ipertrofica, displasia aritmogena, cardiomiopatia dilatativa…) o a malattia dei canali ionici’’, channelopatia’’




FC 72/min
Intervalli:
RR 829 ms
P 144 ms
PQ 196 ms
QRS 108 ms
QT 486 ms
QTC 534 ms
Asse el.:
P 0 °
QRS -10 °
T 11 °
P (II) 0.06 mV
S (V1) -0.97 mV
R (V5) 0.71 mV
Sokol. 2.08 mV
10 mm/mV
I
II
III
aVR
aVL
aVF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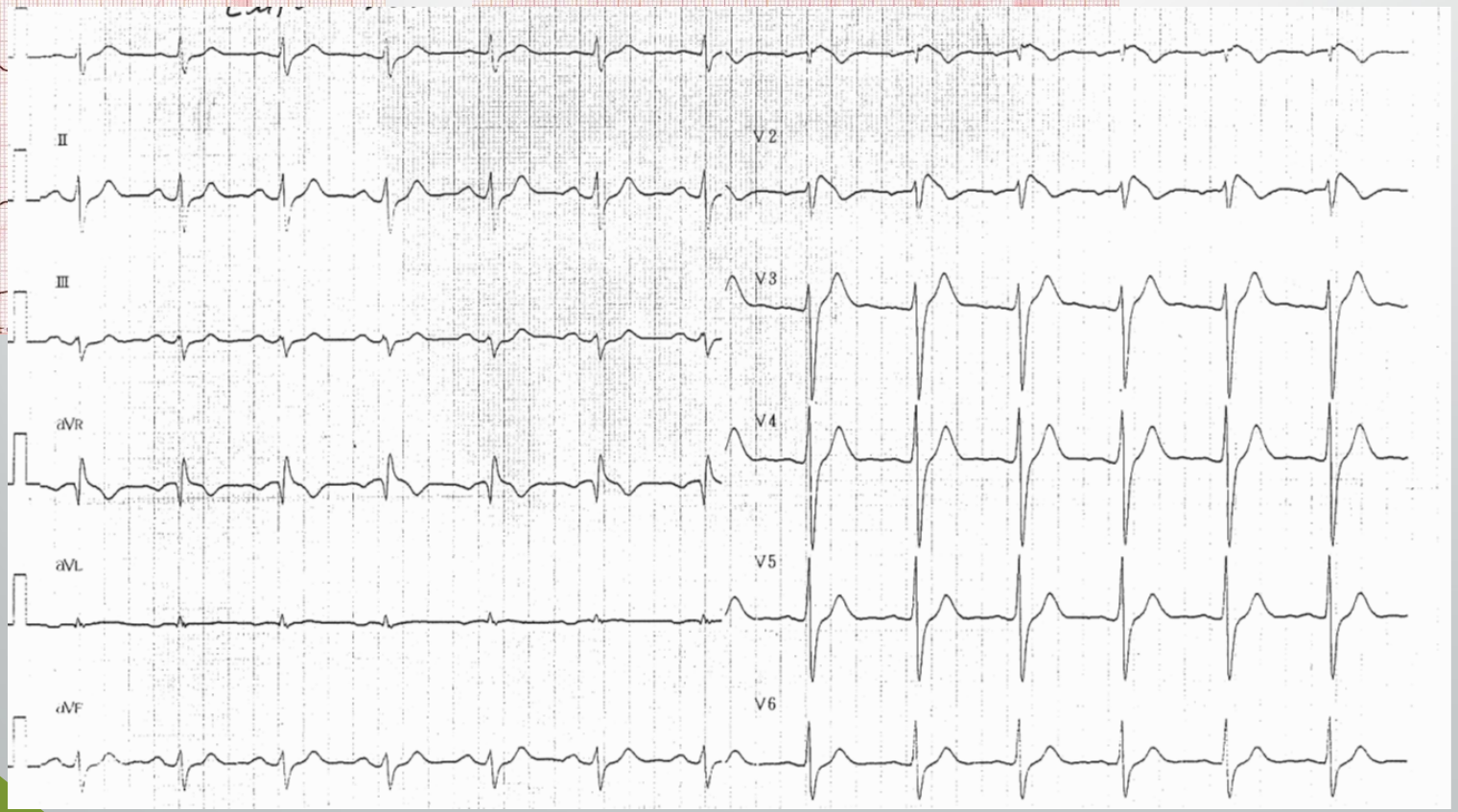
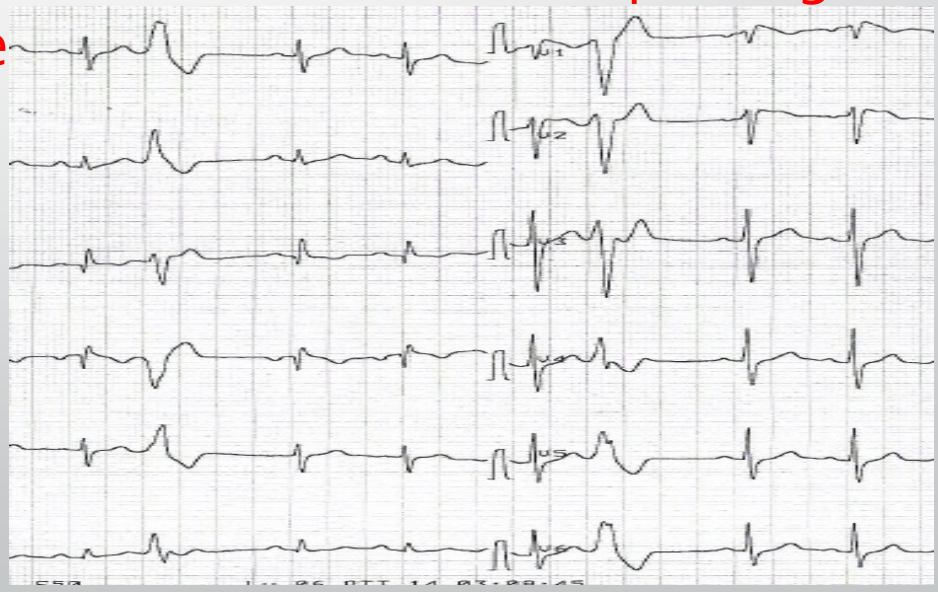
V1
V2
V3

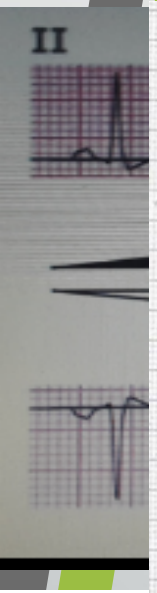

II
III
aVR
aVL
aVF
V2
V3
V4
V5
V6

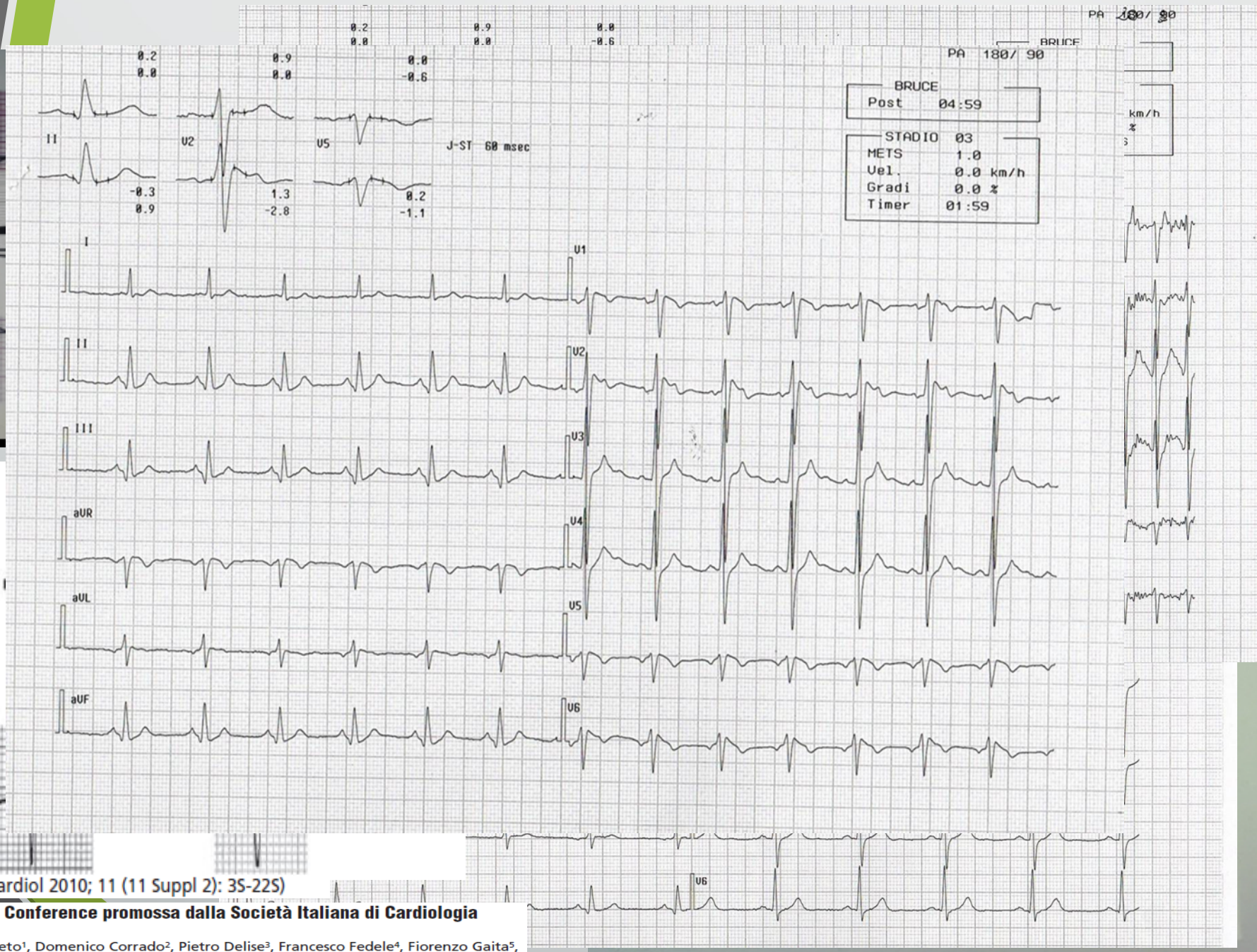
Abbiamo visto l'extrasistolia ventricolare ed analizzato il qrs-t

Secondo snodo

1. È normale che l'intervallo QT allunghi dopo extrasistole
2. Conta più la ripetitività della morfologia dell'extrasistolia
3. sopra ST solo in V1-2 non è compatibile con lesione ischemica
4. Le anomalie concordano con una patologia unificante







(G Ital Cardiol 2010; 11 (11 Suppl 2): 3S-22S)

Consensus Conference promossa dalla Società Italiana di Cardiologia

Giuseppe Oreto[1], Domenico Corrado[2], Pietro Delise[3], Francesco Fedele[4], Fiorenzo Gaita[5], Federico Gentile[6], Carla Giustetto[5], Antonio Michelucci[7], Luigi Padeletti[7], Silvia Priori[8]

Makimoto et al JAAC 2010;56:15

terzo snodo

Quale terapia in attesa del cardiologo

1 Antipiretico e antibiotico

2 Beta bloccante a scopo sintomatico

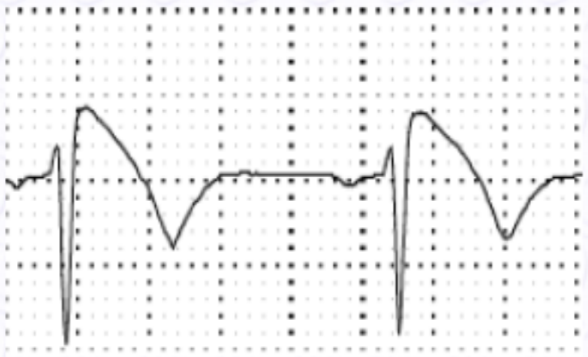
3 Antiaritmico - es. Propafenone

4 Ansiolitici

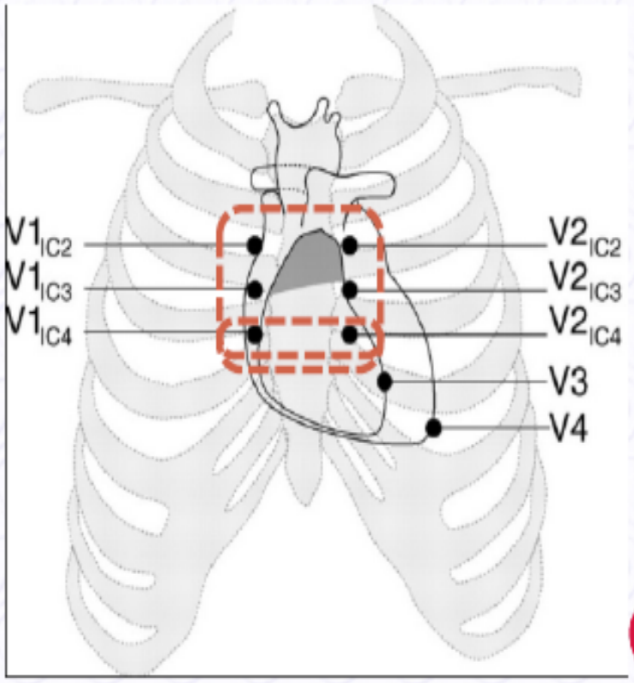
Brugada Syndrome: Diagnosis

Brugada Syndrome is diagnosed in patients with ST-segment elevation with type I morphology ≥2mm in ≥1 lead among the right precordial leads V1 and/or V2 positioned in the 2nd, 3rd or 4th intercostal space, occurring either spontaneously or after provocative drug test with intravenous administration of sodium channel blockers (such as ajmaline, flecainide, procainamide or pilsicainide).

I	C

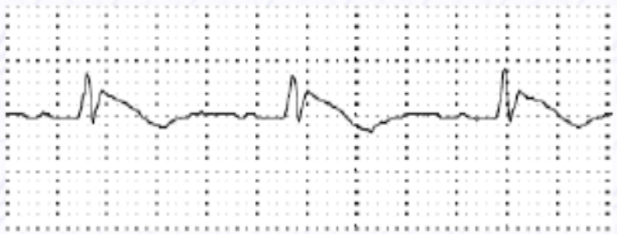


Type 1 pattern

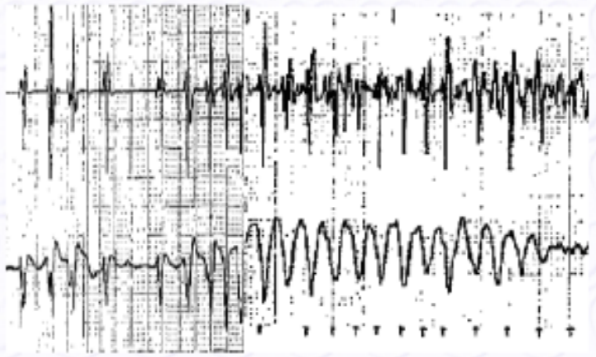


Brugada Syndrome (BrS)

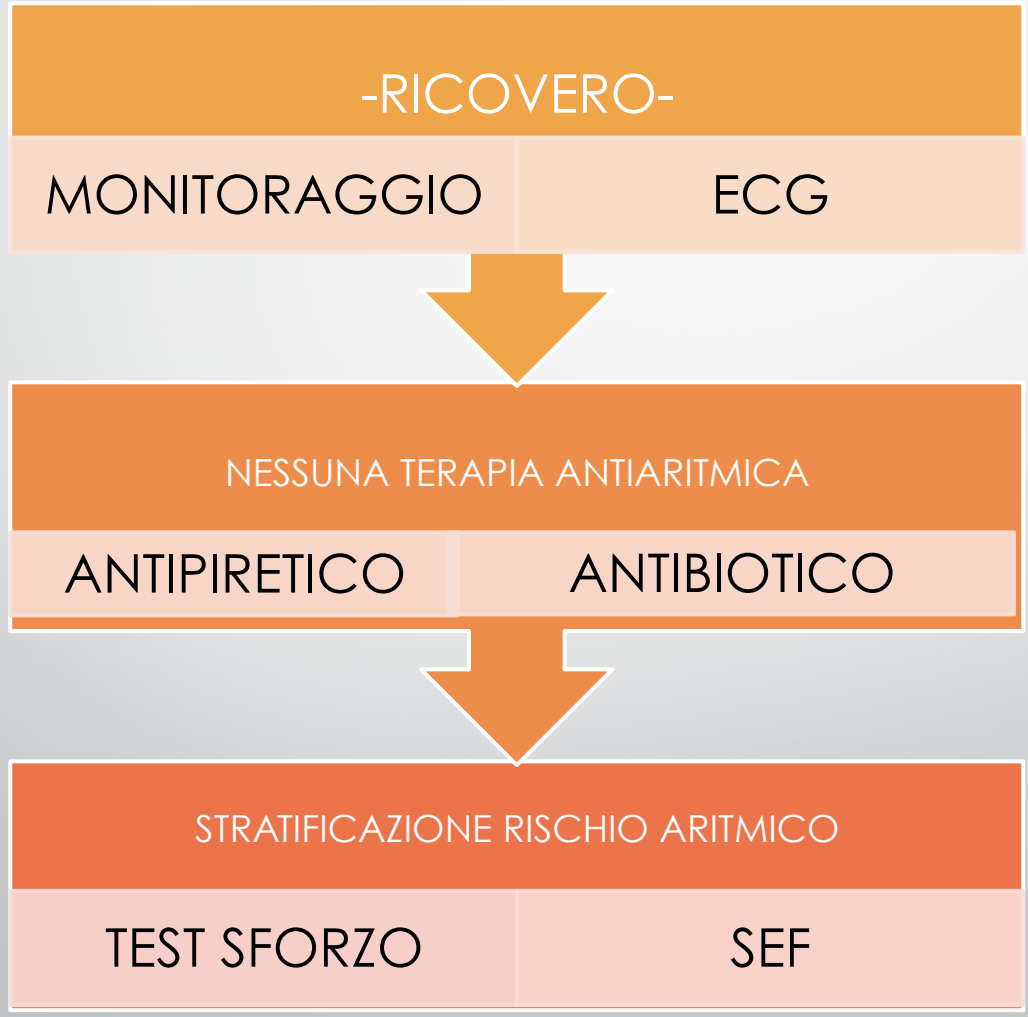
- Prevalence up to 1 in 1,000.
- Autosomal dominant inheritance, but age and gender-related penetrance (males:females ratio 8:1).
- 41±15 years mean age at CA.
- VF occurs mainly during rest or sleep.
- Fever is a triggers that predispose to VF.
- At least 12 genes have been associated with Brugada syndrome, only two (SCN5A and CACN1Ac) account for >5% of genotyped patients.



MM, female, 55 years



ipotesi di sincope aritmica in s.Brugada tipo 1 spontaneo



European Heart Journal (2009) 30, 2631–2671
doi:10.1093/eurheartj/ehp298

ESC GUIDELINES

Guidelines for the diagnosis and management of syncope (version 2009)

The Task Force for the Diagnosis and Management of Syncope of the European Society of Cardiology (ESC)

Recommendations: electrophysiological study

Recommendations	Class[a]	Level[b]
Indications		
• In patients with ischaemic heart disease EPS is indicated when initial evaluation suggests an arrhythmic cause of syncope (listed in Table 10) unless there is already an established indication for ICD	I	B
• In patients with BBB, EPS should be considered when non-invasive tests have failed to make the diagnosis	IIa	B
• In patients with syncope preceded by sudden and brief palpitations, EPS may be performed when other non-invasive tests have failed to make the diagnosis	IIb	B
• In patients with Brugada syndrome, ARVC and hypertrophic cardiomyopathy an EPS may be performed in selected cases	IIb	C
• In patients with high-risk occupations, in whom every effort to exclude a cardiovascular cause of syncope is warranted, an EPS may be performed in selected cases	IIb	C
• EPS is not recommended in patients with normal ECG, no heart disease, and no palpitations	III	B
Diagnostic criteria		
• EPS is diagnostic, and no additional tests are required, in the following cases:		
☐ Sinus bradycardia and prolonged CSNRT (>525 ms)	I	B
☐ BBB and either a baseline HV interval of ≥100 ms, or second or third degree His–Purkinje block is demonstrated during incremental atrial pacing, or with pharmacological challenge	I	B
☐ Induction of sustained monomorphic VT in patients with previous myocardial infarction	I	B
☐ Induction of rapid SVT which reproduces hypotensive or spontaneous symptoms	I	B
• An HV interval between 70 and 100 ms should be considered diagnostic	IIa	B
• The induction of polymorphic VT or ventricular fibrillation in patients with Brugada syndrome, ARVC, and patients resuscitated from cardiac arrest may be considered diagnostic	IIb	B
• The induction of polymorphic VT or ventricular fibrillation in patients with ischaemic cardiomyopathy or DCM cannot be considered a diagnostic finding	III	B

BrS: Lifestyle modifications for all patients (class I)

- Avoidance of drugs that may induce type I pattern

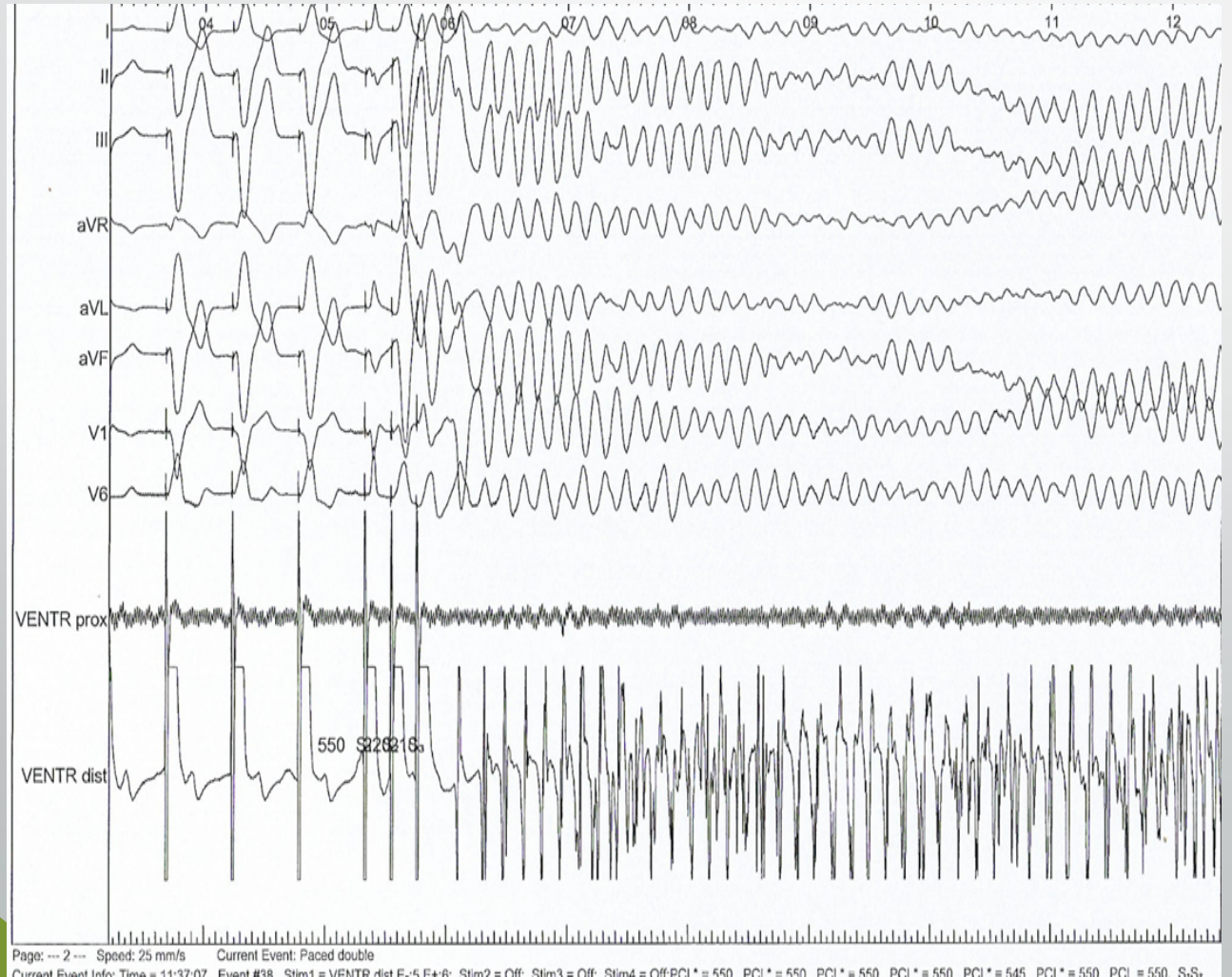
www.brugadadrugs.org

BrugadaDrugs.org
Safe drug use and the Brugada syndrome

- Avoidance of excessive alcohol intake and large meals

- Prompt treatment of any fever

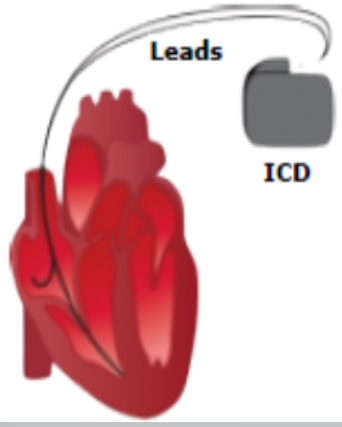
Studio elettrofisiologico intravacitario

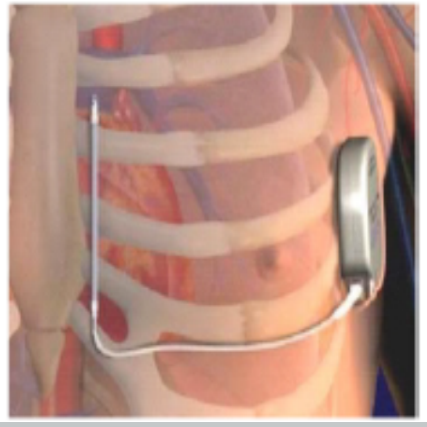


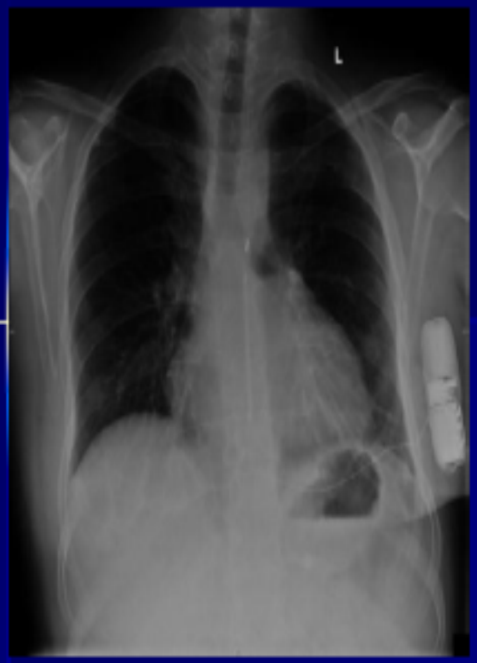
BrS: Implantable Cardioverter Defibrillator

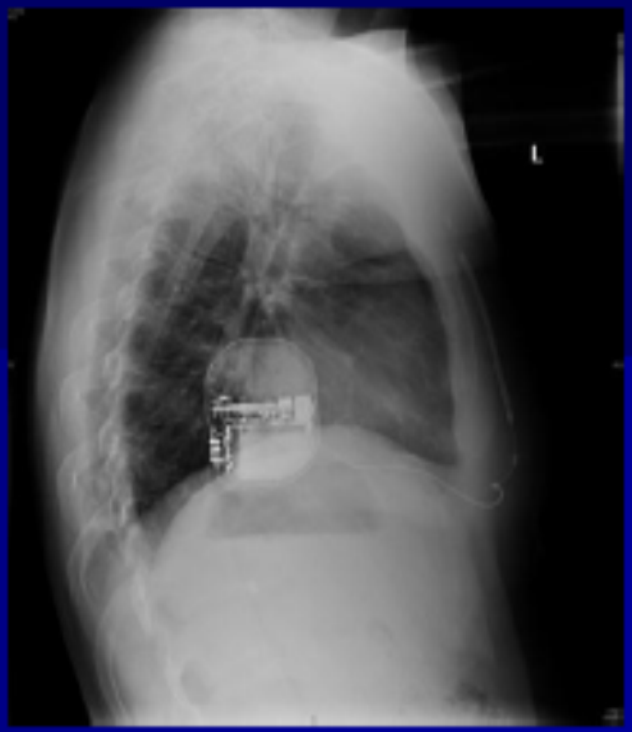
- **The only treatment able to reduce the risk of SCD in Brugada syndrome is the ICD…Who does need it?**

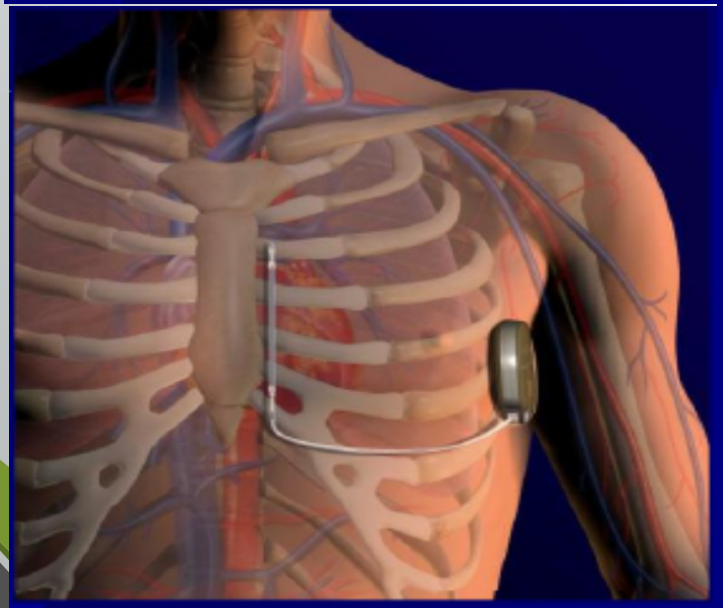
ICD implantation is recommended in patients with a diagnosis of Brugada syndrome who: a. Are survivors of an aborted cardiac arrest, and/or b. Have documented spontaneous sustained VT.	I	C
ICD implantation should be considered in patients with a spontaneous diagnostic type I ECG pattern and history of syncope.	IIa	C
ICD implantation may be considered in patients with a diagnosis of Brugada syndrome who develop VF during PVS with up to either 2 or 3 extrastimuli at two sites.	IIb	C

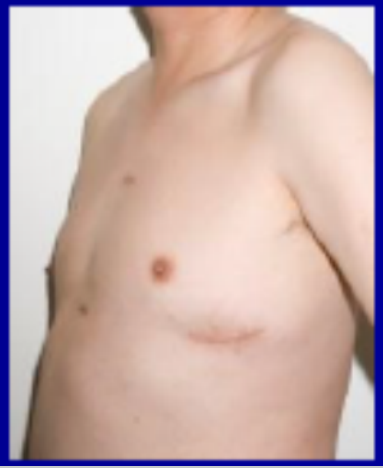





L

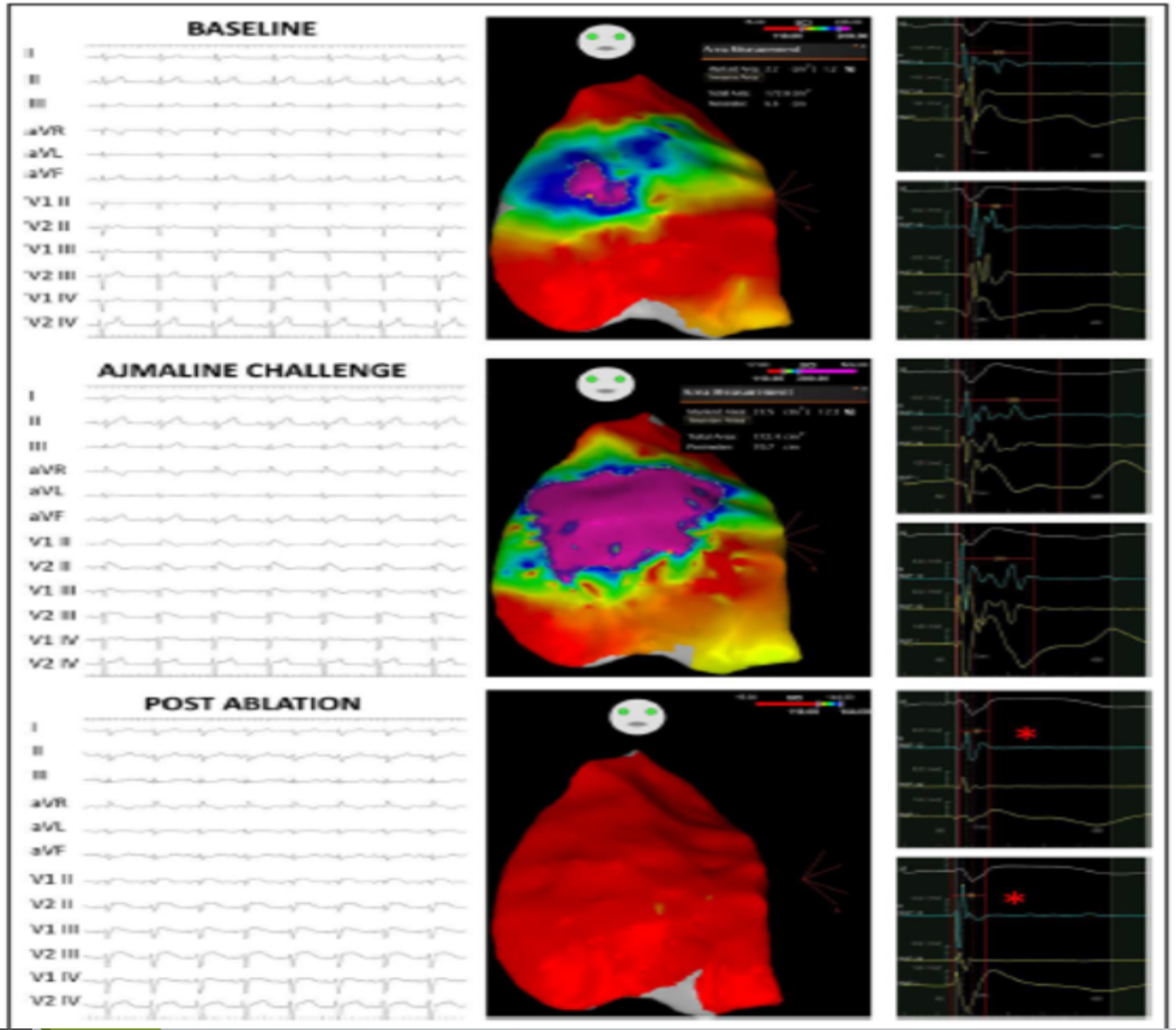

L





BrS: additional therapeutic options

Quinidine or isoproterenol should be considered in patients with Brugada syndrome to treat electrical storms.	IIa	C
Quinidine should be considered in patients who qualify for an ICD, but present a contra-indication or refuse it, and in patients who require treatment for supraventricular arrhythmias.	IIa	C
Catheter ablation may be considered in patients with a history of electrical storms or repeated appropriate ICD shocks.	IIb	C


BASELINE
I
II
III
aVR
aVL
aVF
V1 II
V2 II
V1 III
V2 III
V1 IV
V2 IV
AJMALINE CHALLENGE
I
II
III
aVR
aVL
aVF
V1 II
V2 II
V1 III
V2 III
V1 IV
V2 IV
POST ABLATION
I
II
III
aVR
aVL
aVF
V1 II
V2 II
V1 III
V2 III
V1 IV
V2 IV

Concetti da asporto
Take home message

- LA MORFOLOGIA DELL'EXTRASISTOLE VA SEMPRE CONTESTUALIZZATA CON LA PATOLOGIA DI BASE

-UNA MORFOLOGIA «BENIGNA» O MONOMORFA NON INDICA NECESSARIAMENTE BASSA PERICOLOSITA'

-ANALIZZARE ATTENTAMENTE IL QRS-T PERCHE' QUESTO DETERMINA IL PESO PROGNOSTICO DELL'EXTRASISTOLE

-NON PRESCRIVERE BETA BLOCCANTI NE' ANTIARITMICI «INDIPENDENTEMENTE» E MAI PRIMA DI AVERE FATTO DIAGNOSI DI CARDIOPATIA SOTTOSTANTE

GRAZIE
PER L'ATTENZIONE