

# ECG Divino

## Caso clinico n. 6

ECG DIVINO



Asti

**Dr. Federico Ferraris**

Ospedale Molinette, Torino

**V. G.**

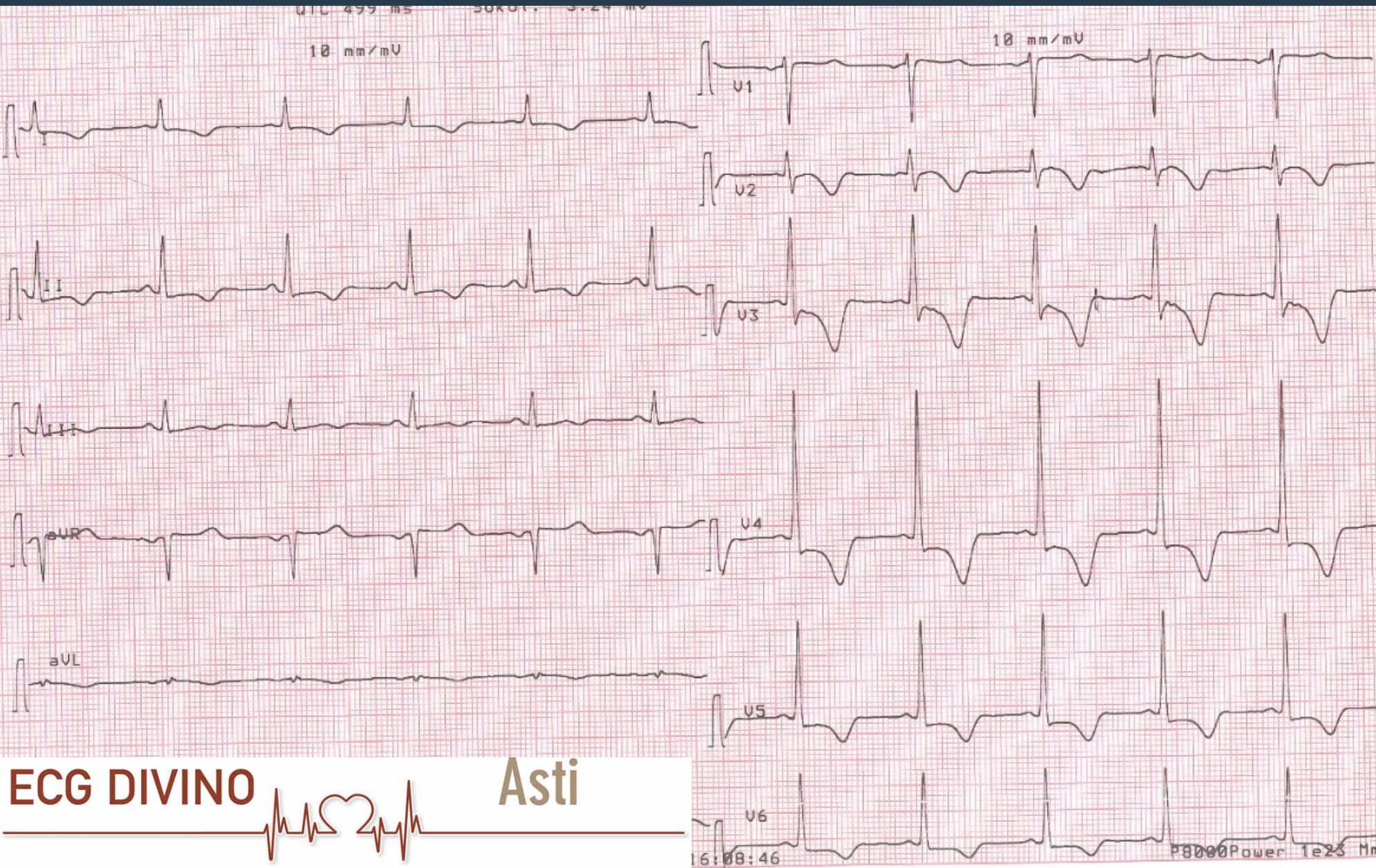
**42 anni, femmina**

**Episodio sincopale**

**Valutazione cardiologica tre settimane dopo**



# ECG 6 settembre, tre settimane dopo la sincope



ECG DIVINO

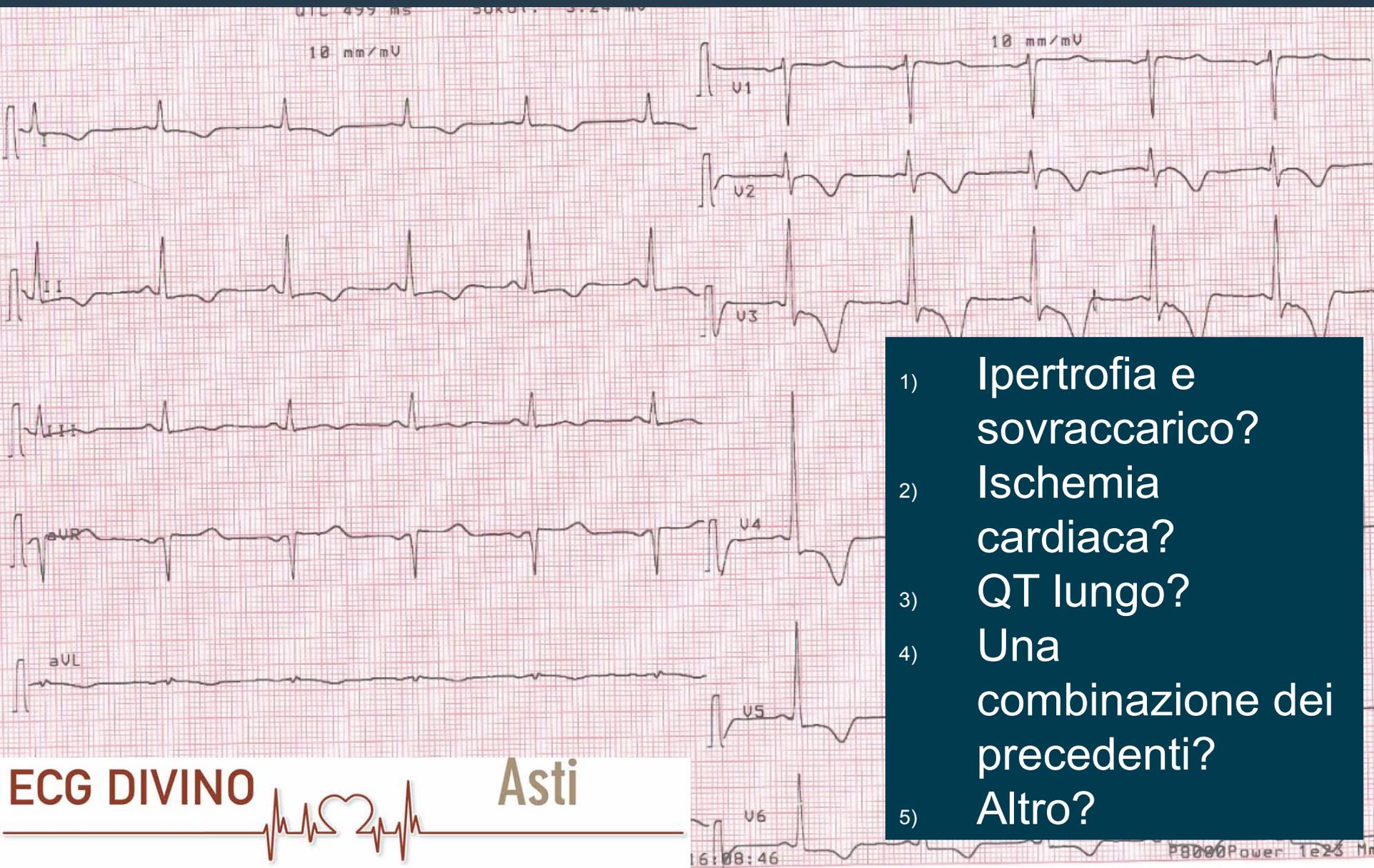


Asti

16:08:46

PG000Power 1e25 Mm

# ECG 6 settembre, tre settimane dopo la sincope



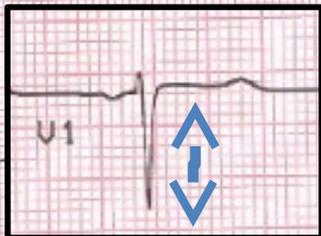
- 1) Ipertrofia e sovraccarico?
- 2) Ischemia cardiaca?
- 3) QT lungo?
- 4) Una combinazione dei precedenti?
- 5) Altro?



# ECG 6 settembre, tre settimane dopo la sincope

## Sokolow-Lyon index:

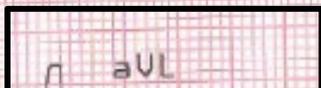
- 1) S in V 1 + R in V 5 or V 6 (la più ampia)  $\geq 35$  mm
- 2) R in aVL  $\geq 11$  mm



10 + 18 m:  
28 mm



2 mm

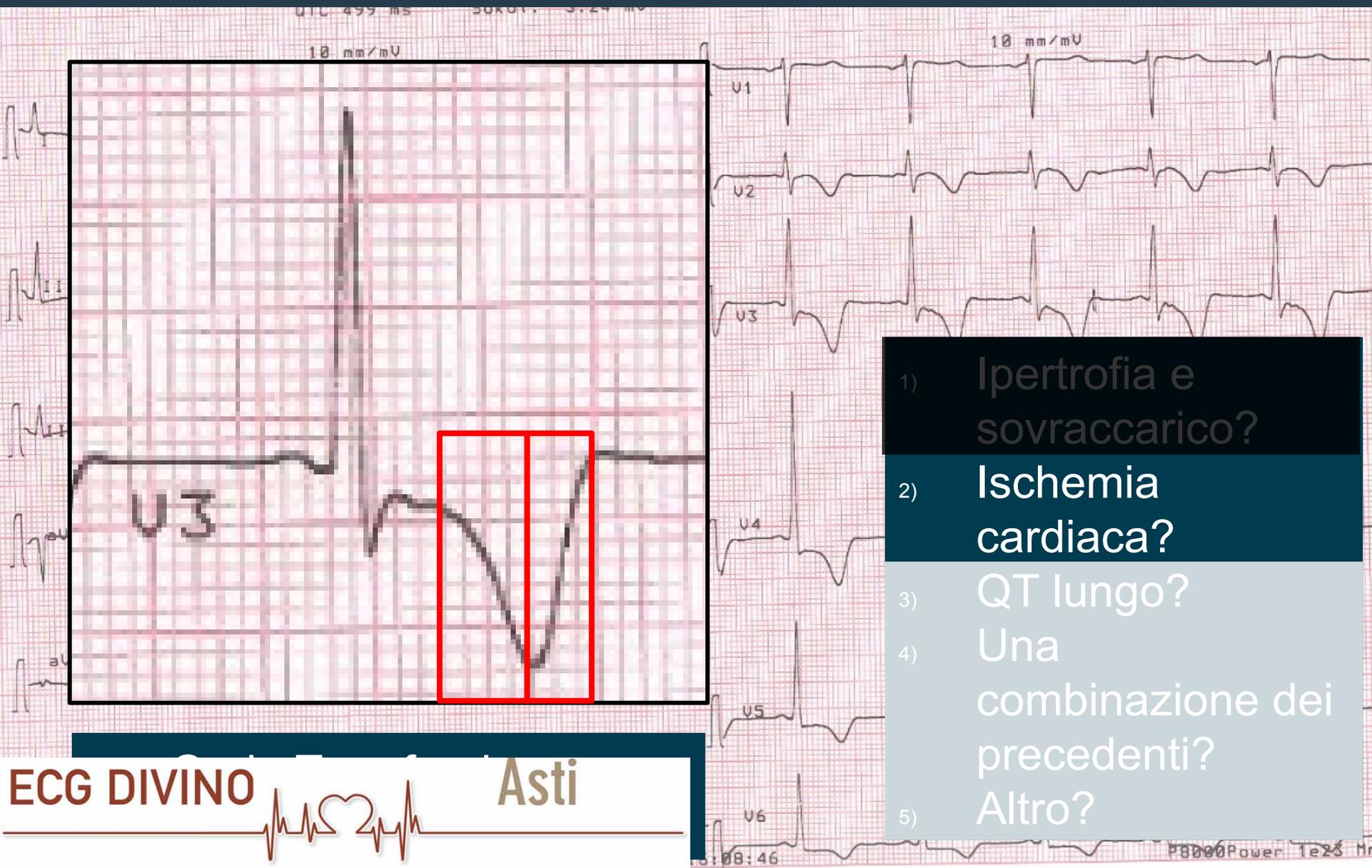


2 mm

- 1) Ipertrofia e sovraccarico?
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- 5) Altro?

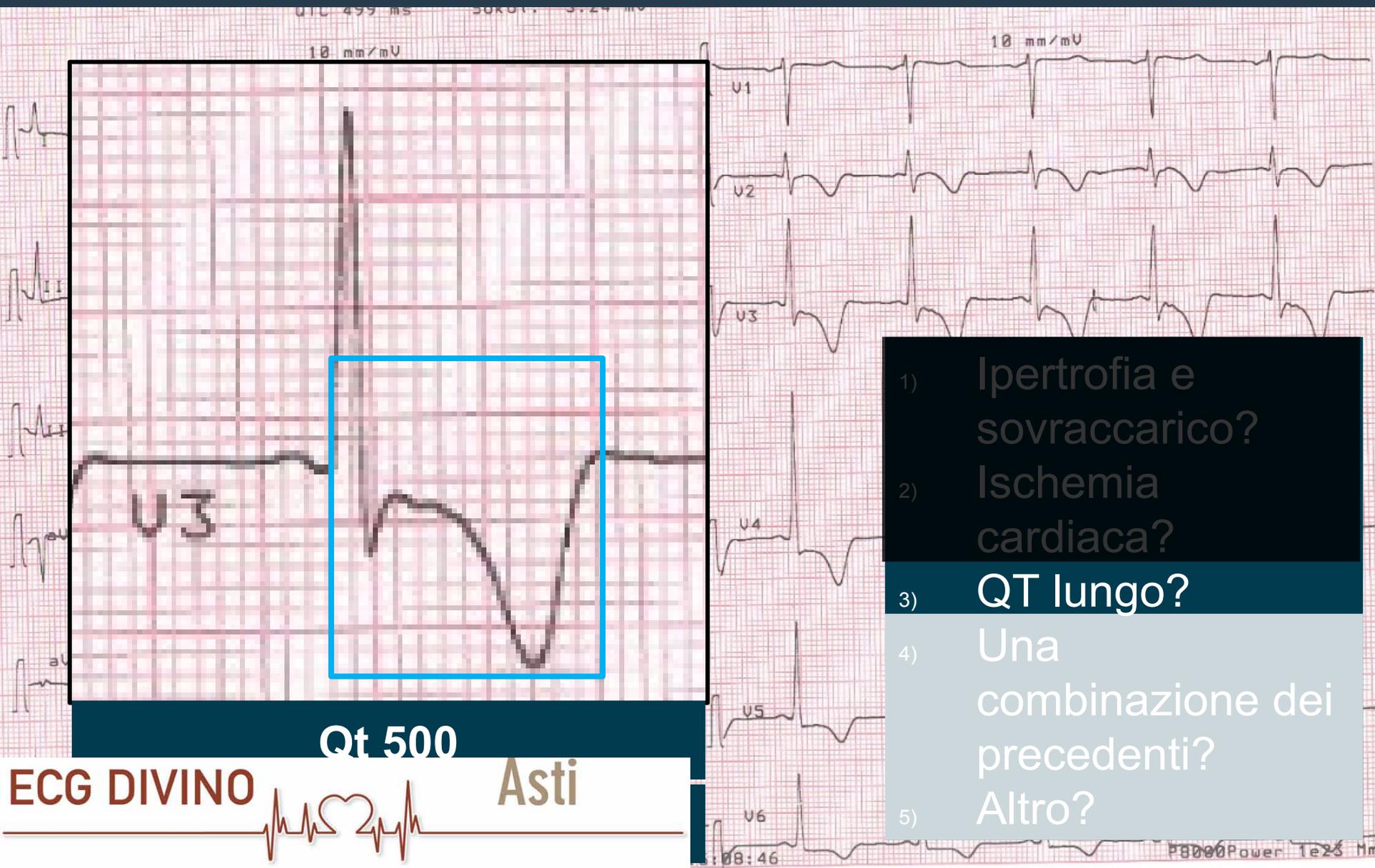


# ECG 6 settembre, tre settimane dopo la sincope



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## Altri dati clinici

**Disturbi alimentari, dal 2011 diagnosi di anoressia nervosa**

**Sincope a casa dopo periodo ipoalimentazione**

**Peso al momento dell'evento: 23 kg (165 cm)**

**In PS:**

**Disidratazione**

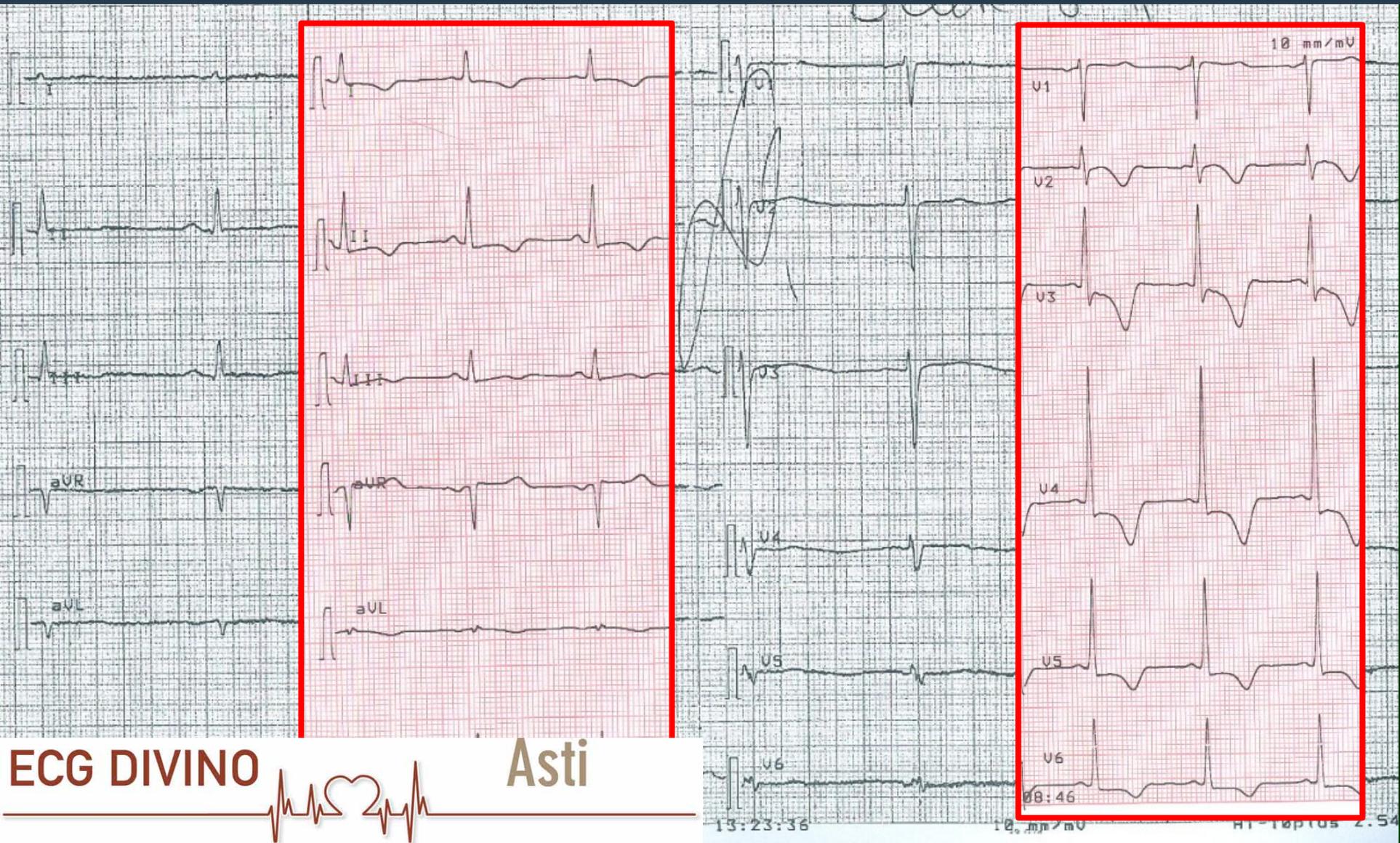
**Insufficienza epatica (AST 1180, LDH 934, INR 1.96)**

**Ipoglicemia (12 mg/dl)**

**Elettroliti normali (Na, K, Mg, Ca), enzimi cardiaci**



# ECG dopo sincope, 14 agosto

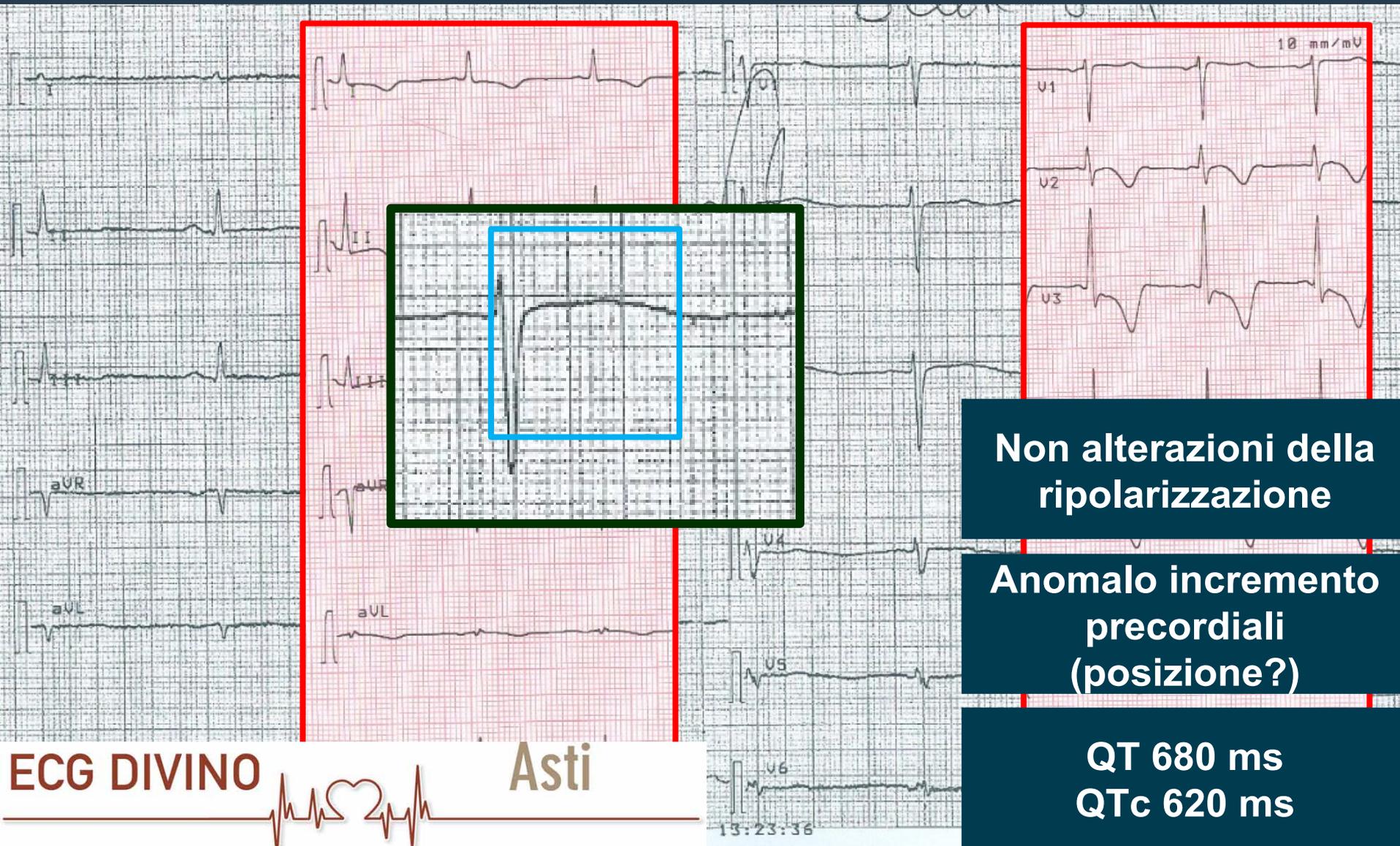


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# ECG dopo sincope, 14 agosto

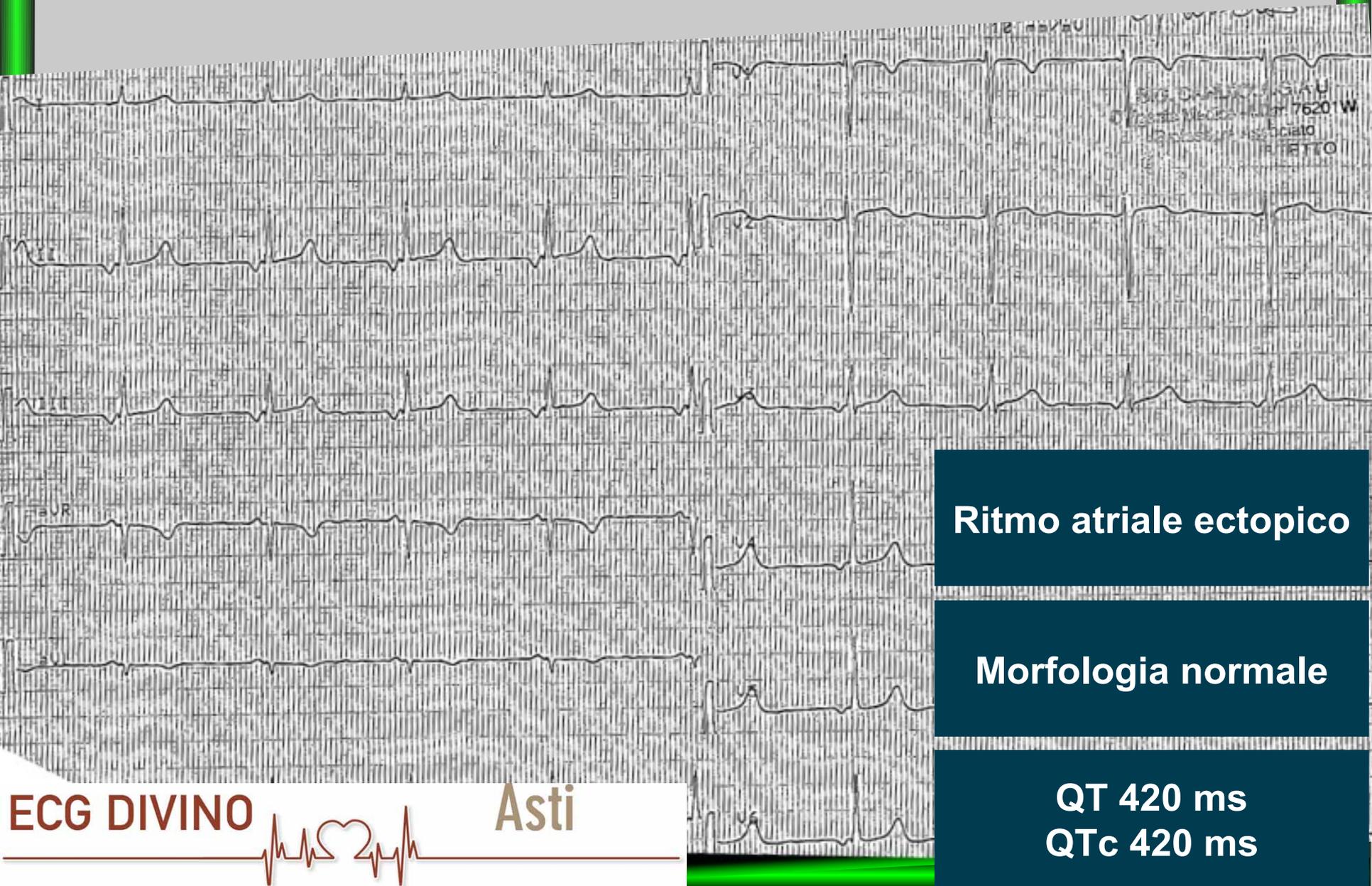


**Non alterazioni della  
ripolarizzazione**

**Anomalo incremento  
precordiali  
(posizione?)**

**QT 680 ms  
QTc 620 ms**

# Unico ECG precedente, febbraio 2016



# Altri dati clinici

**Ricoverata reparto medicina interna**

esito negativo.

Si interpreta l'episodio, come altre (rare ) segnalazioni in letteratura, come di origine ipovolemia, con epatite ischemica e successiva ipoglicemia.

La disenteria non è stata

**Trasferita psichiatria nostro ospedale**

**ECG anomalo, troponina 75 (vn <50) → cardiologia**

ECG DIVINO

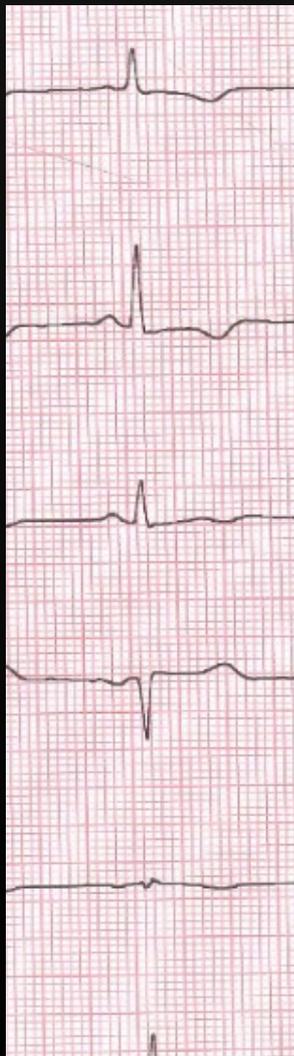
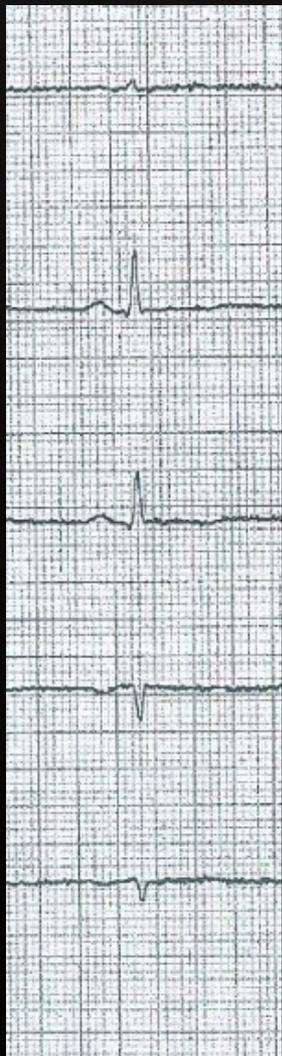


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6 febbraio

14 agosto

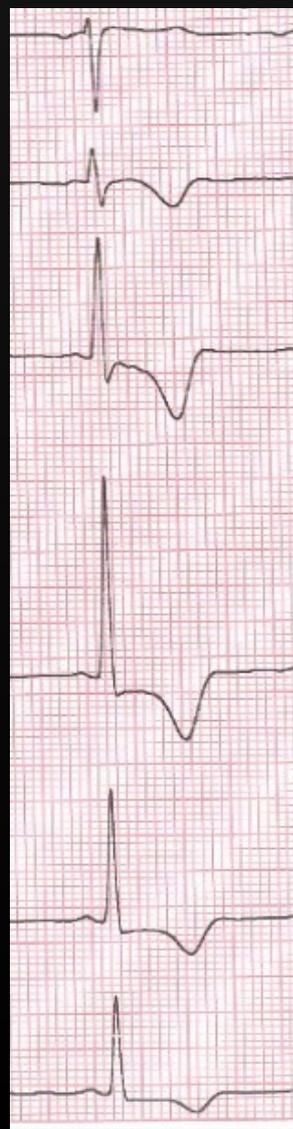
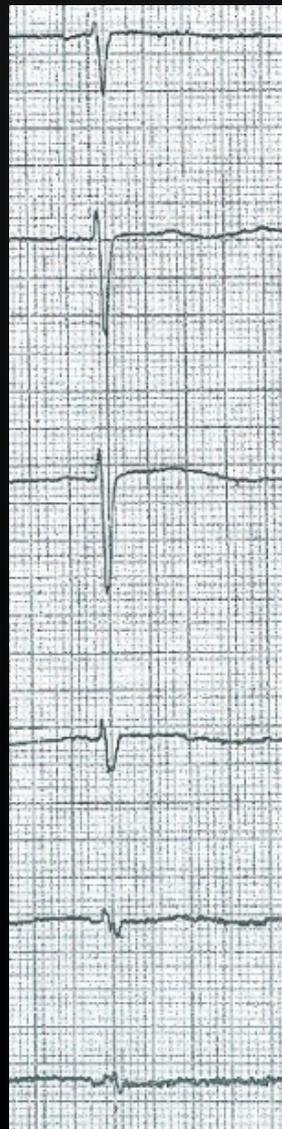
6 settembre



6 febbraio

14 agosto

6 settembre



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Asti

6 febbraio

14 agosto

6 settembre

6 febbraio

14 agosto

6 settembre



ECG DIVINO



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# Anoressia Nervosa e apparato cardiovascolare

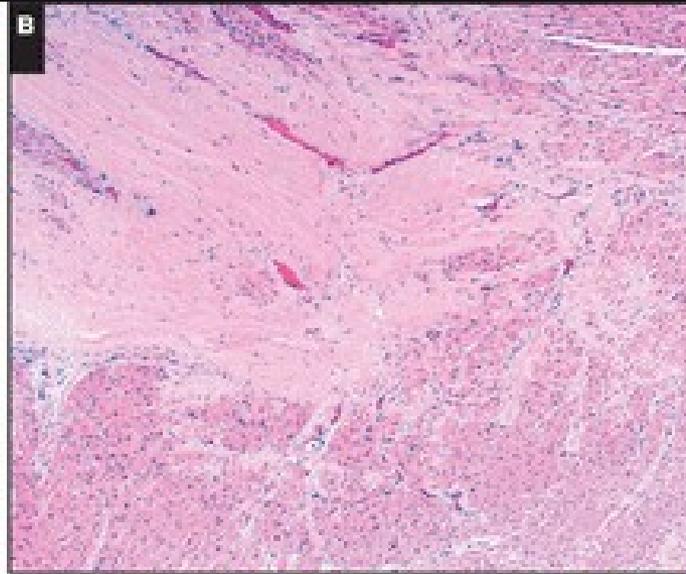
**Bradicardia sinusale**

--

**Prolungamento QTc**

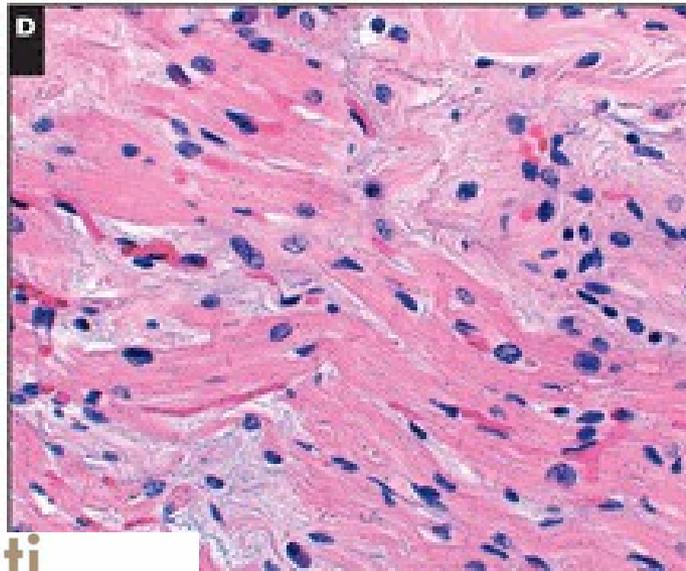
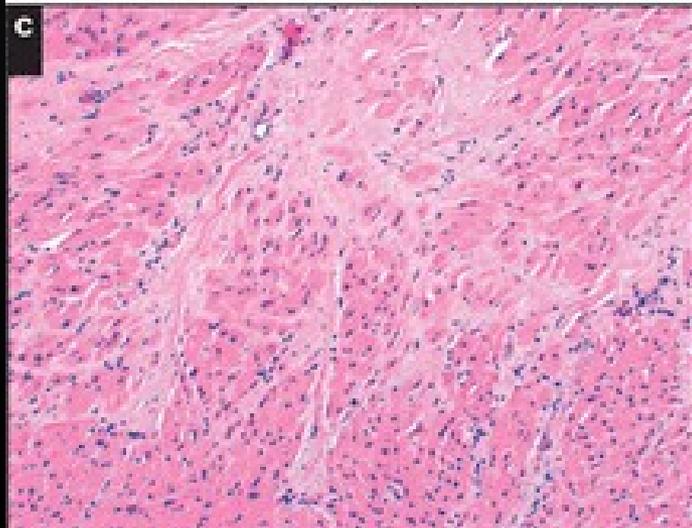



# Modificazioni strutturali cardiache in anoressia



**Atrofia  
miociti**

**Ipotrofia  
miocardio**



**Fibrosi  
interstiziale**

# Anoressia Nervosa e ECG

**Bradycardia sinusale**

--

**Basso voltaggio  
in V6**

--

**Prolungamento QTc**

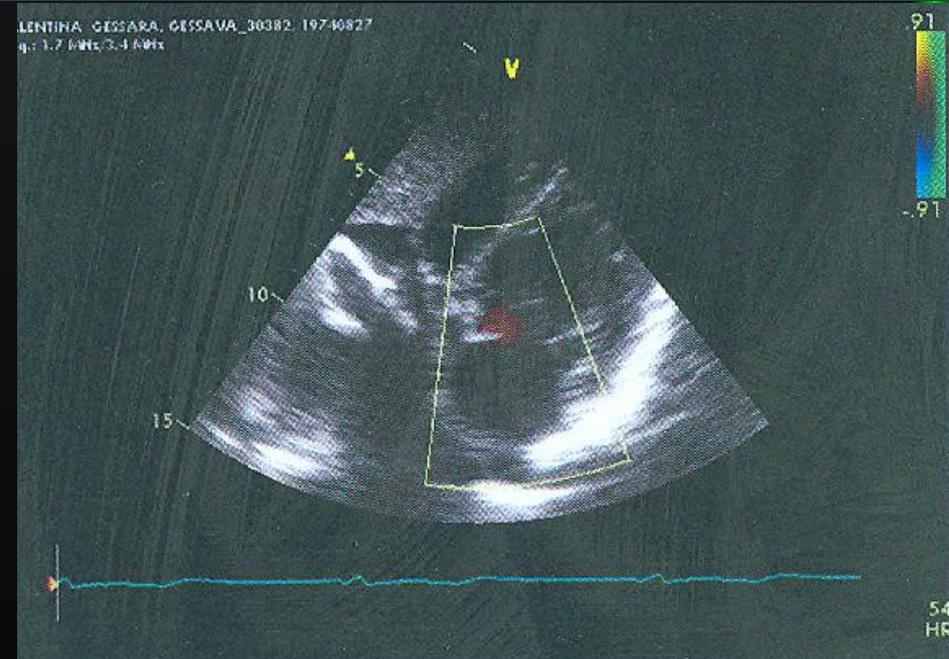

**Case Report**

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**Mancano report su inversione onda T**



# Ecocardiogramma



**Ipocinesia inferiore basale, setto posteriore e parete posteriore basale, FE 50%**

**Non ipertrofia**

**ECG DIVINO**

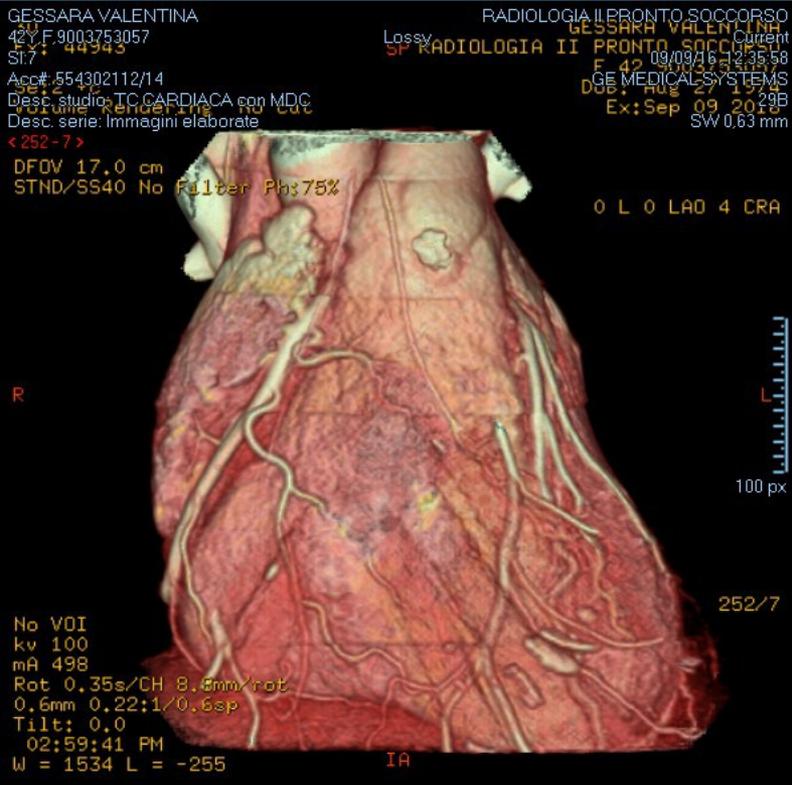
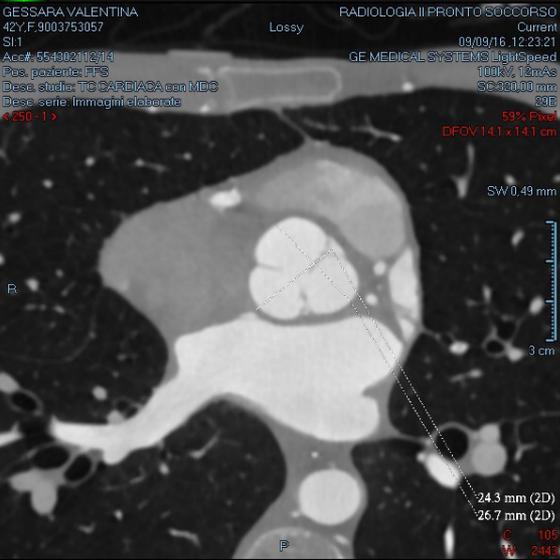


**Asti**

# Approfondimenti diagnostici:

- 1) Test ergometrico?
- 2) Scintigrafia?
- 3) Coronaro TC?
- 4) Coronarografia?
- 5) Altro?

# Coro TC



**Coronarie Indenni**

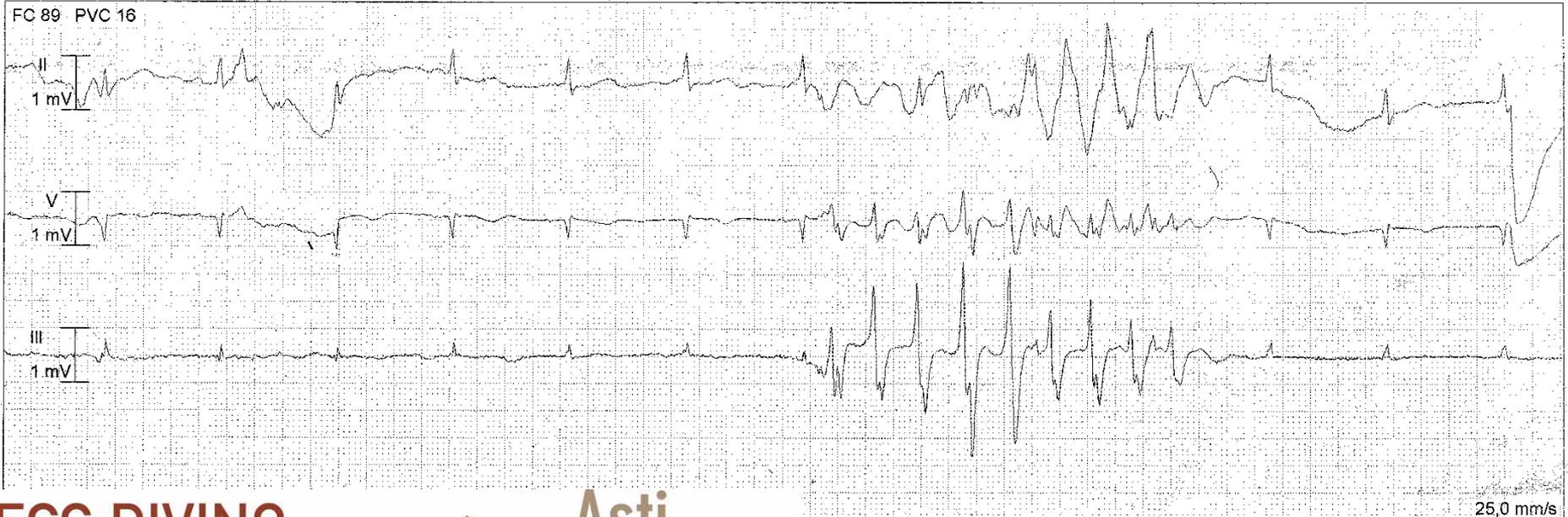
# Followup clinico

Normalizzazione troponina

Monitoraggio ECG

10/09/2016 08:11:07 \*\*\* TACH. VENT.

FC 89 PVC 16



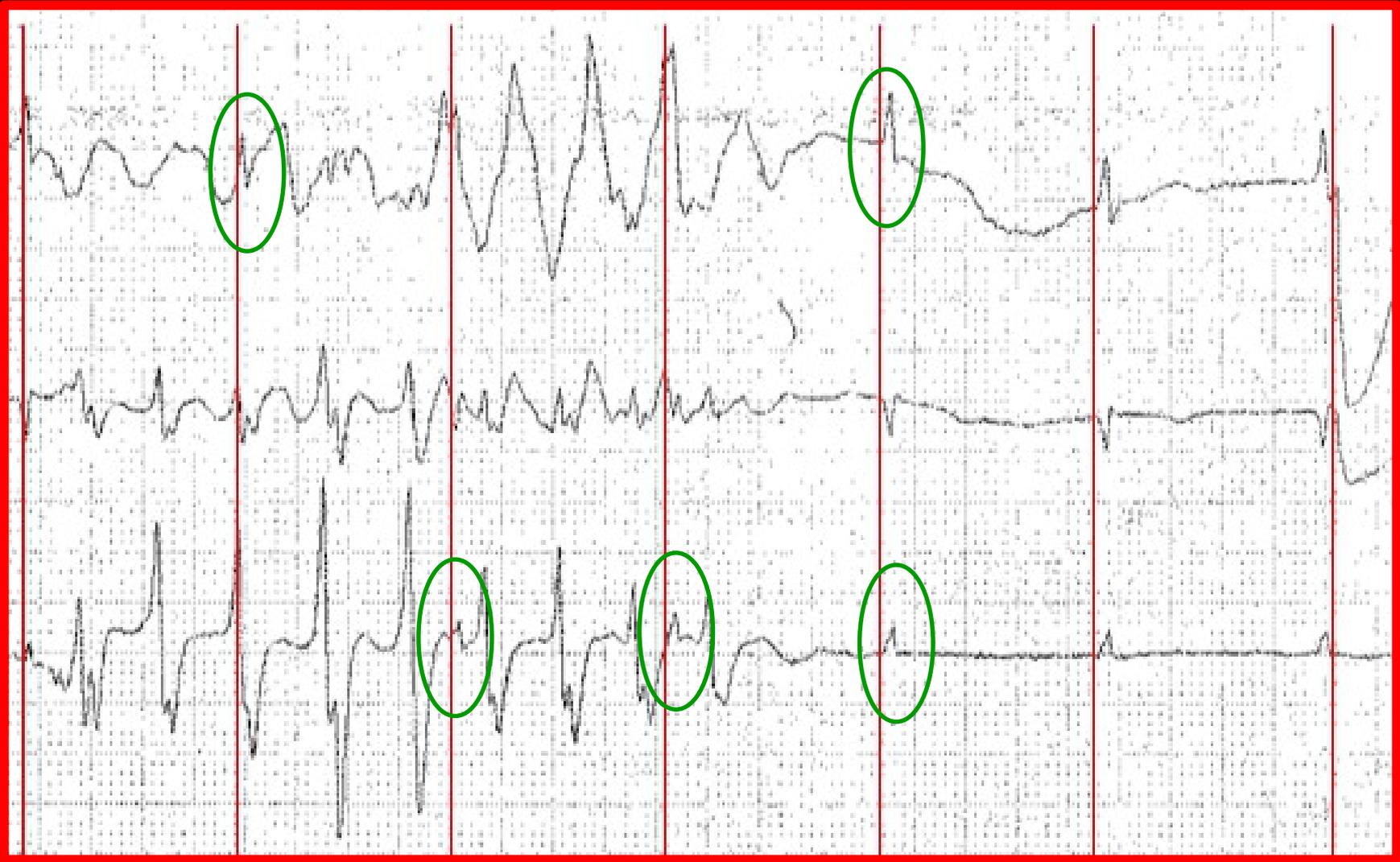
25,0 mm/s

ECG DIVINO



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10/09/  
FC 89  
II  
1 mV  
V  
1 mV  
III  
1 mV



2) Altro?

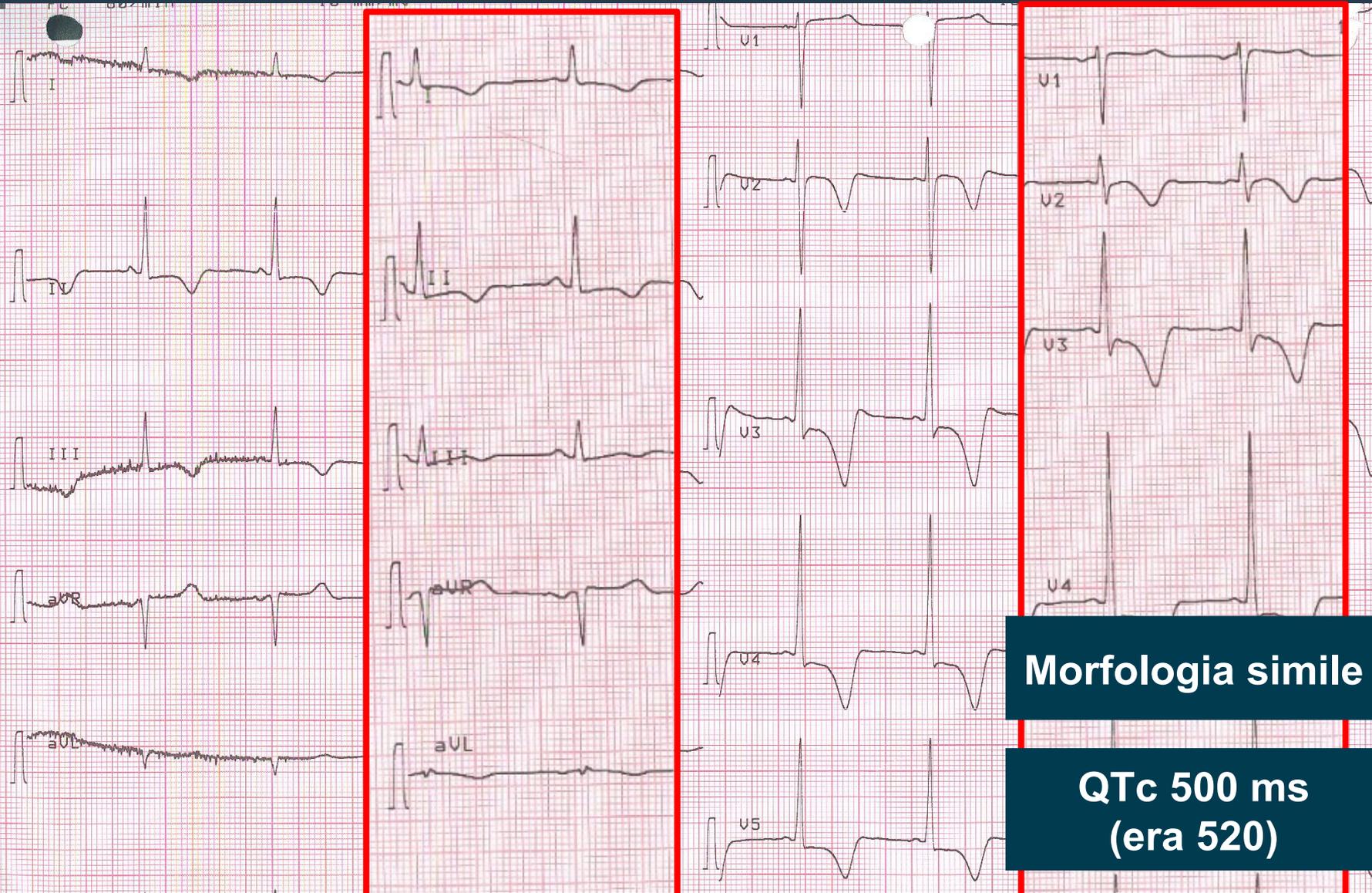


ECG DIVINO



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# ECG 10 settembre, quattro giorni dopo



**Morfologia simile**

**QTc 500 ms  
(era 520)**

# RMN

ECG DIVINO

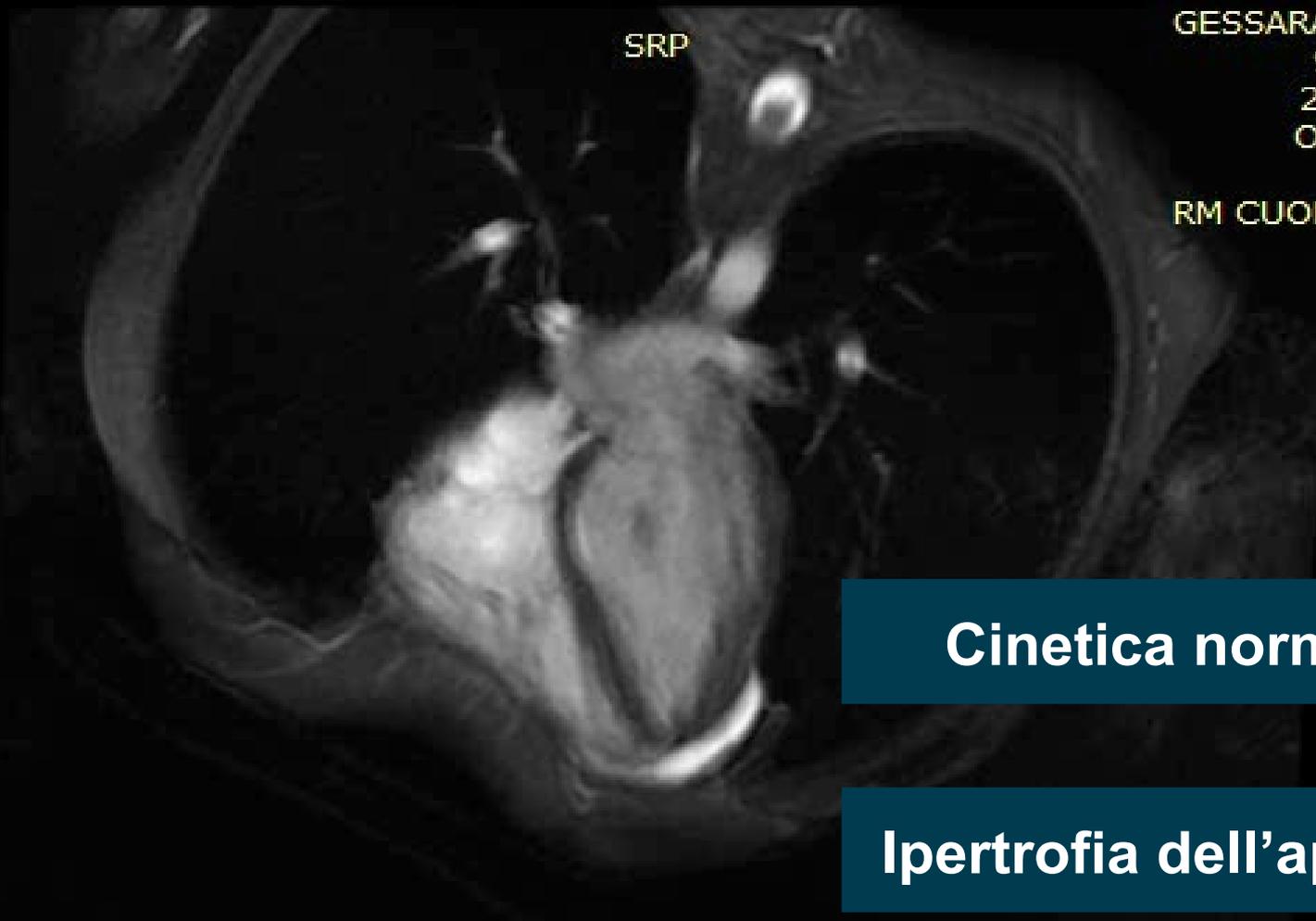


Asti

# RMN

Im: 1/30  
Se: 6

GESSARA VALENTINA  
9003753057  
27/08/1974 F  
Osp Molinette  
25428  
RM CUORE CON MDC  
4C Cine



RI

**Cinetica normale**

**Ipertrofia dell'apice...**

**...solo relativa: 11 mm**

ECG DIVINO

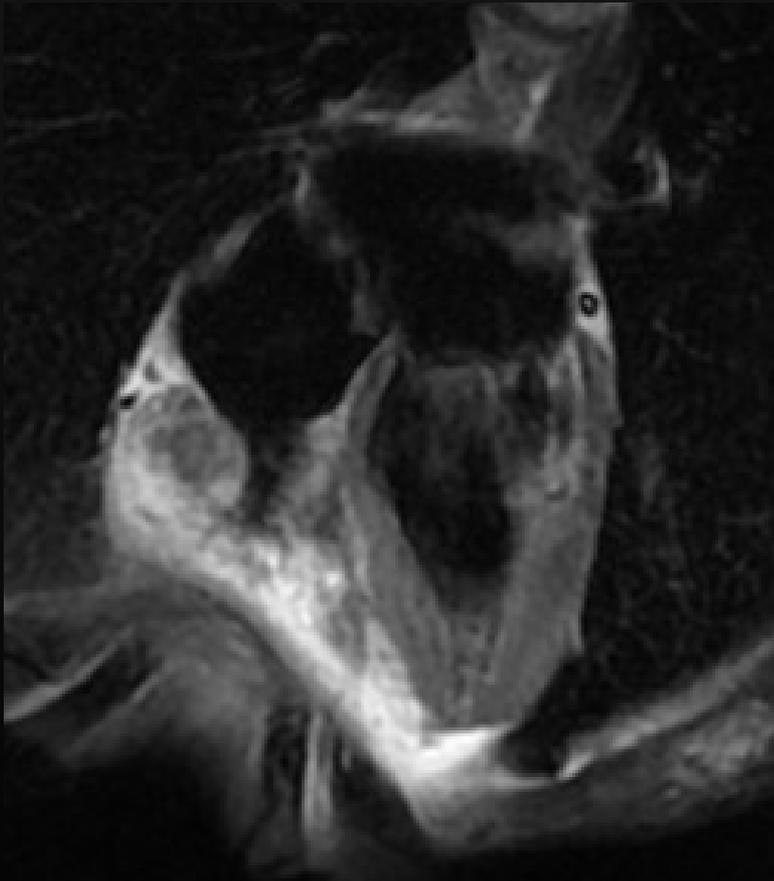


Asti

A

FS: 1.5  
TR: 3.9 TE: 1.7  
14/09/2016 08.43.45

# RMN



**Non edema**



**Non fibrosi**



# RMN



Non edema

Non fibrosi

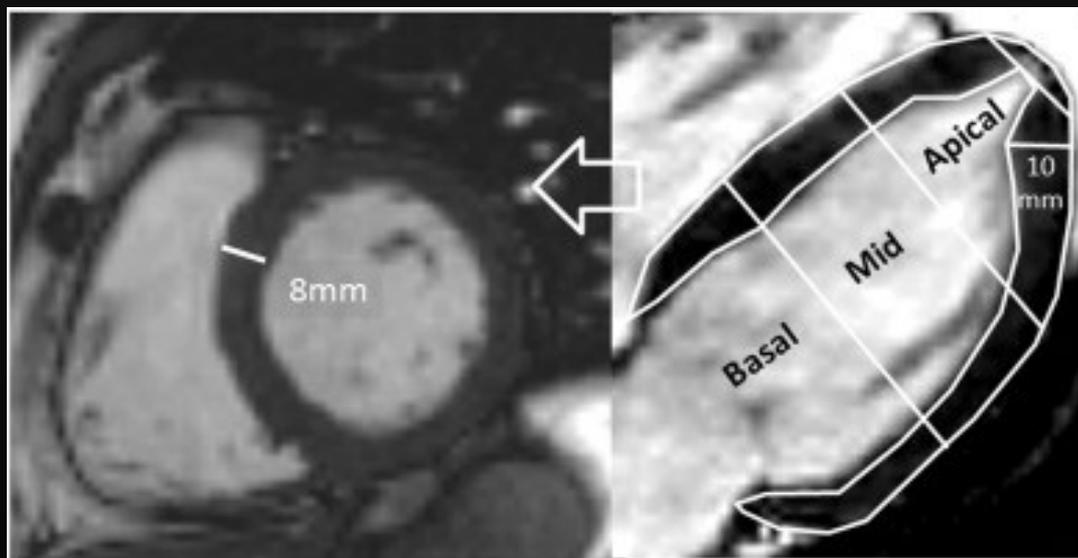
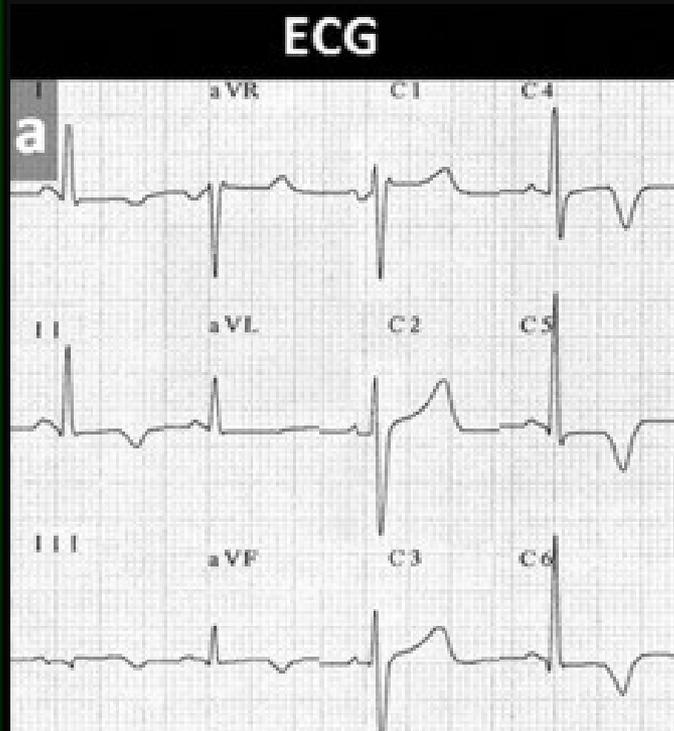
ECG DIVINO



Asti

# Diagnosis of apical hypertrophic cardiomyopathy: T-wave inversion and relative but not absolute apical left ventricular hypertrophy<sup>☆</sup>

Andrew S. Flett<sup>a</sup>, Viviana Maestrini<sup>b</sup>, Don Milliken<sup>b</sup>, Mariana Fontana<sup>b</sup>, Thomas A. Treibel<sup>b</sup>, Rami Harb<sup>b</sup>, Daniel M. Sado<sup>b,c</sup>, Giovanni Quarta<sup>d,f</sup>, Anna Herrey<sup>b</sup>, James Sneddon<sup>e</sup>, Perry Elliott<sup>b,c</sup>, William McKenna<sup>b,c</sup>, James C. Moon<sup>b,c,\*</sup>



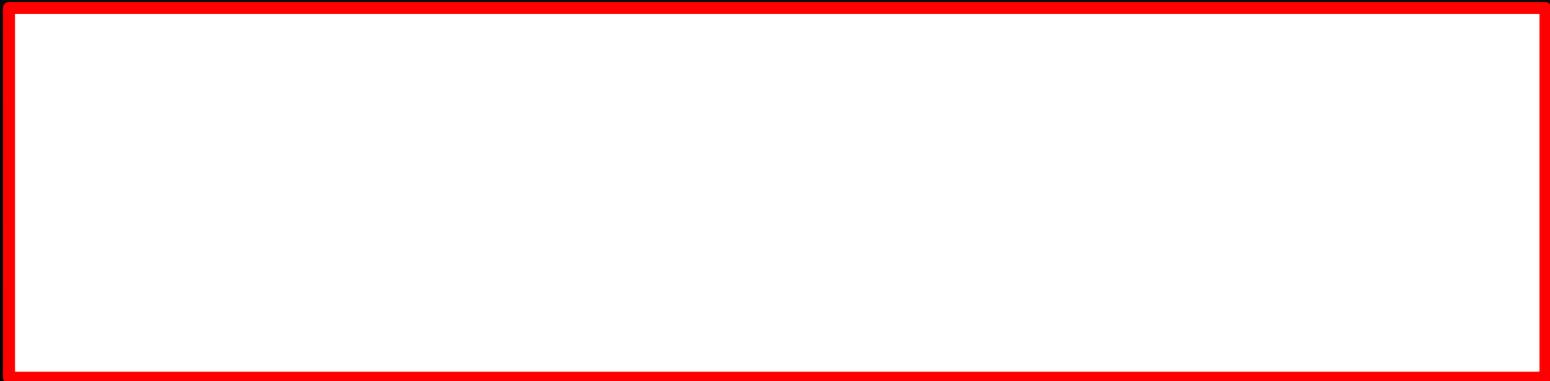
**22 pazienti con T inv e relativa ipertrofia apicale senza pieni criteri per HCM**



# Prima ipotesi diagnostica



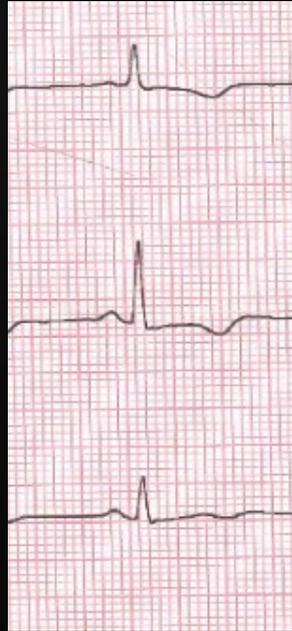
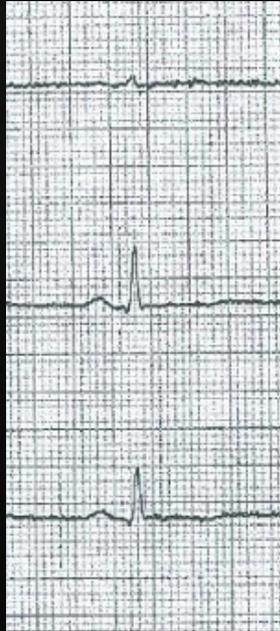
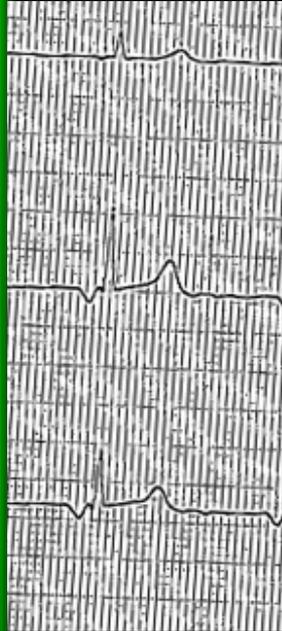
# Prima ipotesi diagnostica



6 febbraio

14 agosto

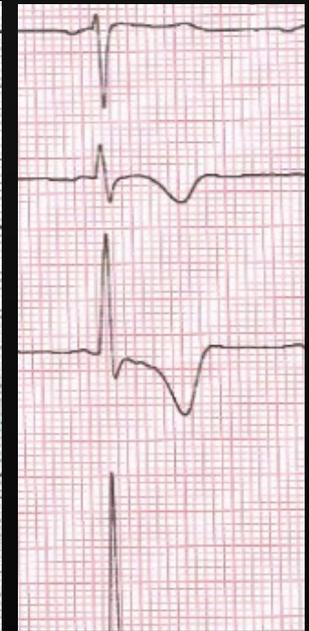
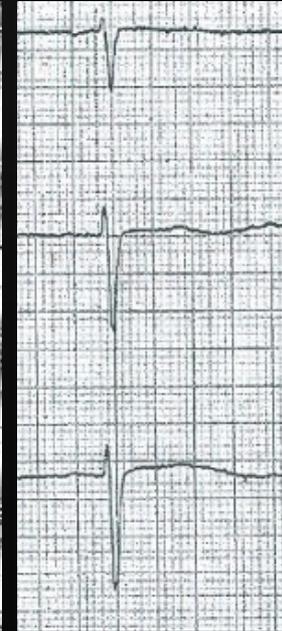
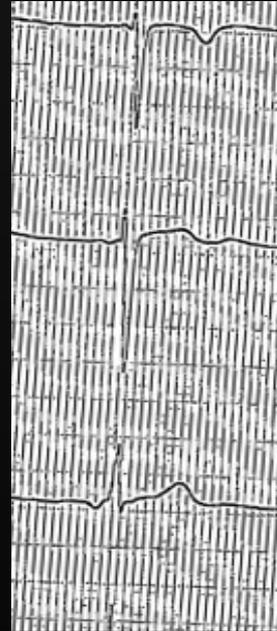
6 settembre



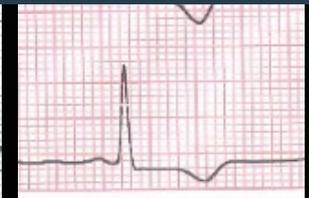
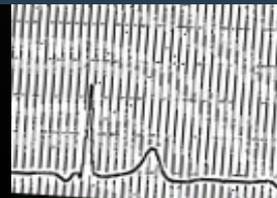
6 febbraio

14 agosto

6 settembre



**Ma questo non spiega  
il rapido cambiamento dell'ECG**



**ECG DIVINO**

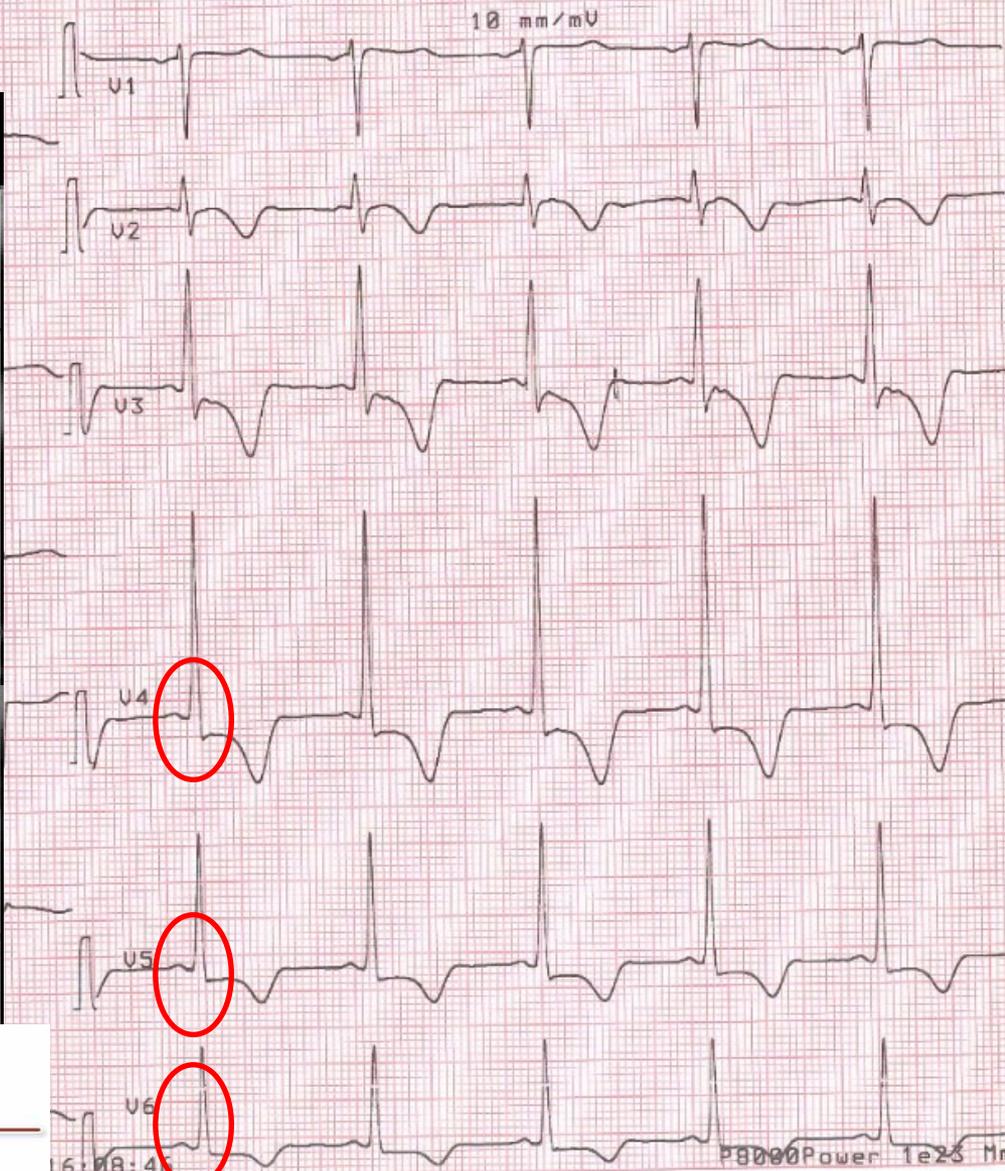
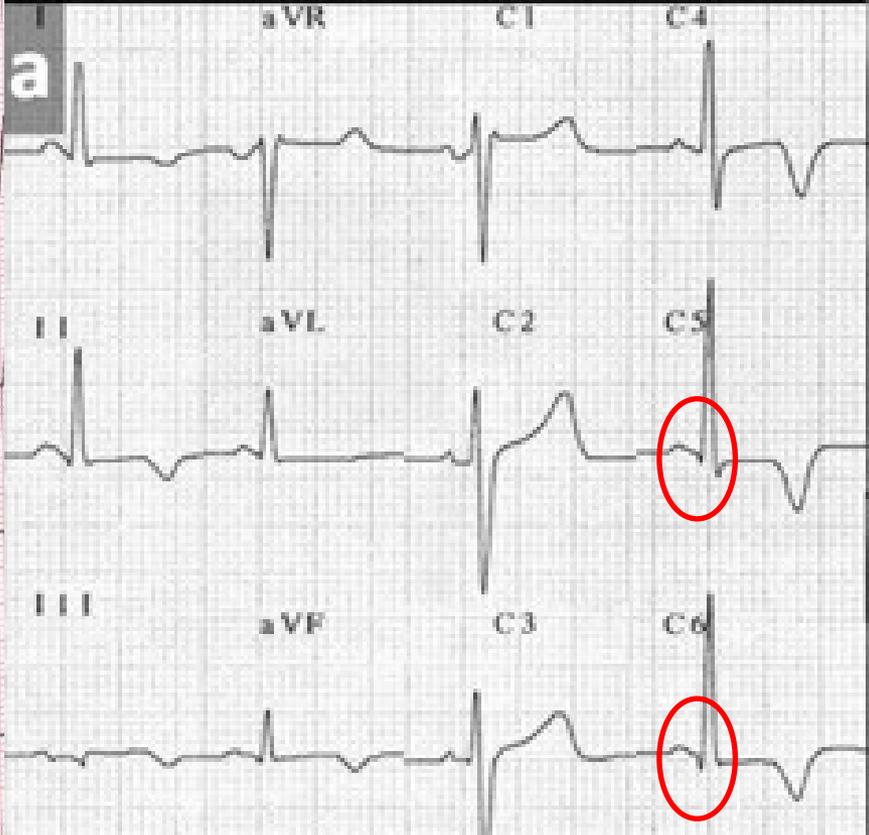


**Asti**

# ECG 6 settembre

10 mm/mV

## ECG



ECG DIVINO



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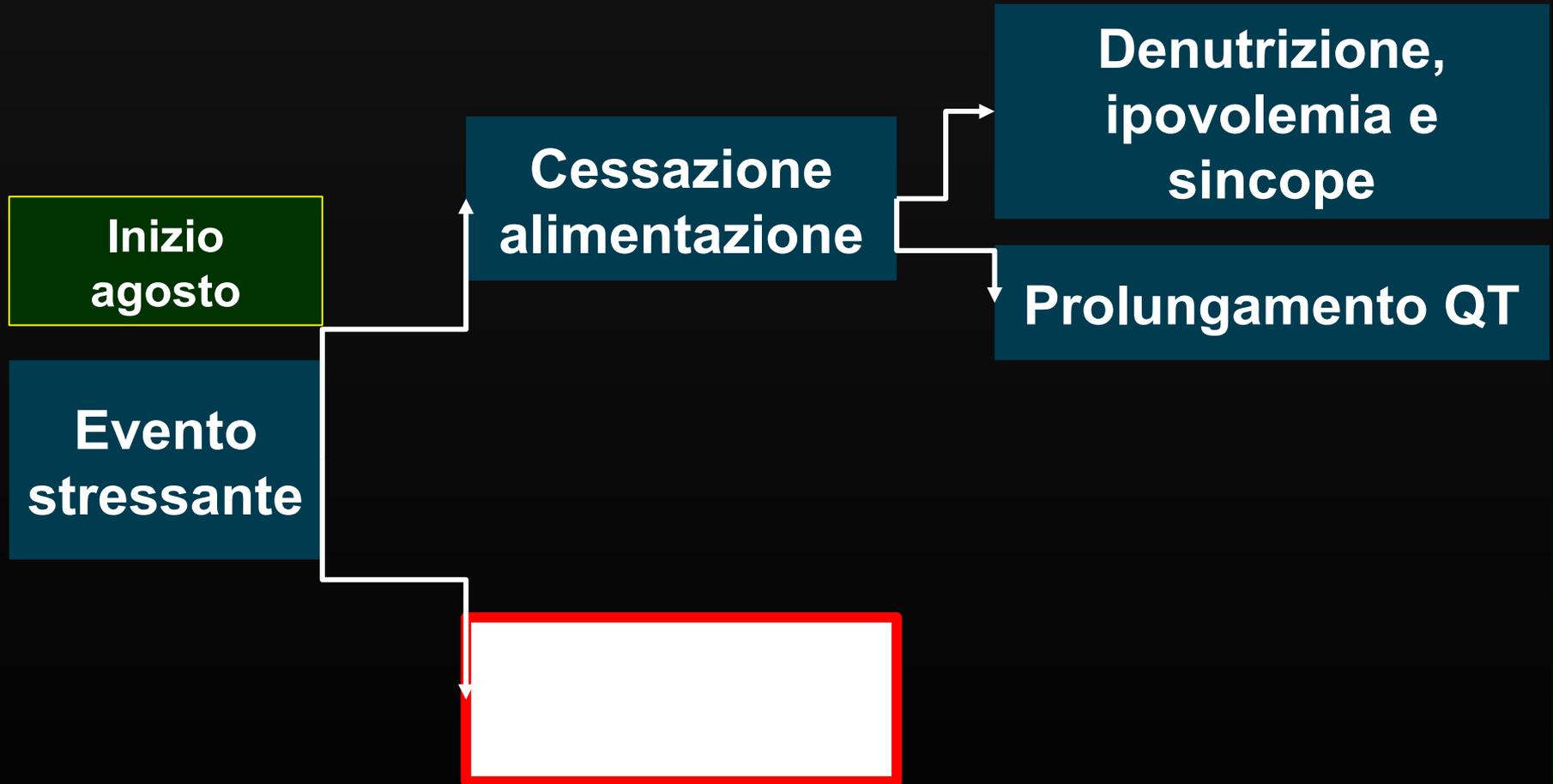
16:08:45

PG000Power 1e25 Mm

## Seconda ipotesi diagnostica



# Seconda ipotesi diagnostica



# Tako Tsubo cardiomyopathy, presenting with cardiogenic shock in a 24-year-old patient with anorexia nervosa

M.N.M. Volman<sup>1,2\*</sup>, R.W. ten Kate<sup>2</sup>, R. Tukkie<sup>1</sup>

INTERNAL  MEDICINE

□ CASE REPORT □

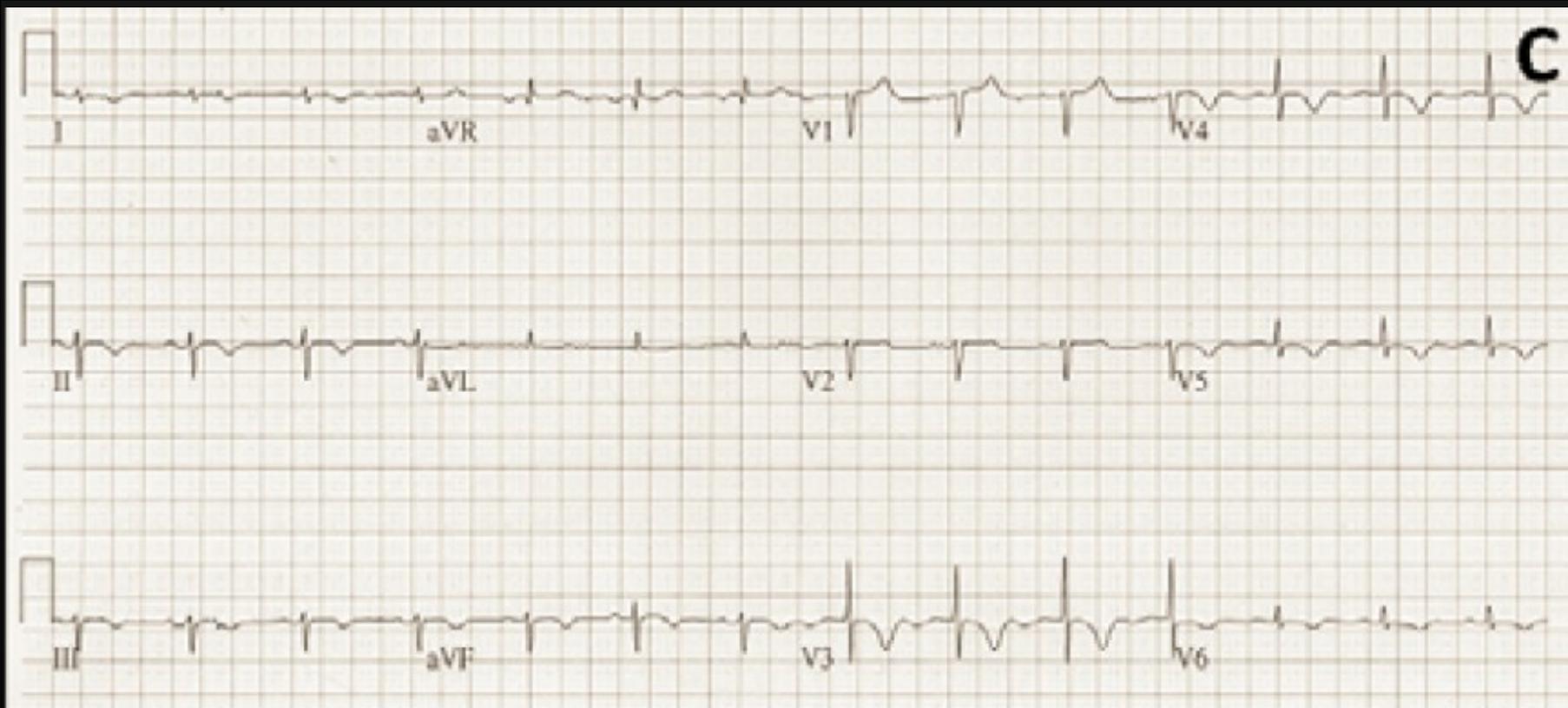
## Tako-tsubo Cardiomyopathy Complicated by Recurrent Torsade de Pointes in a Patient with Anorexia Nervosa

ECG DIVINO



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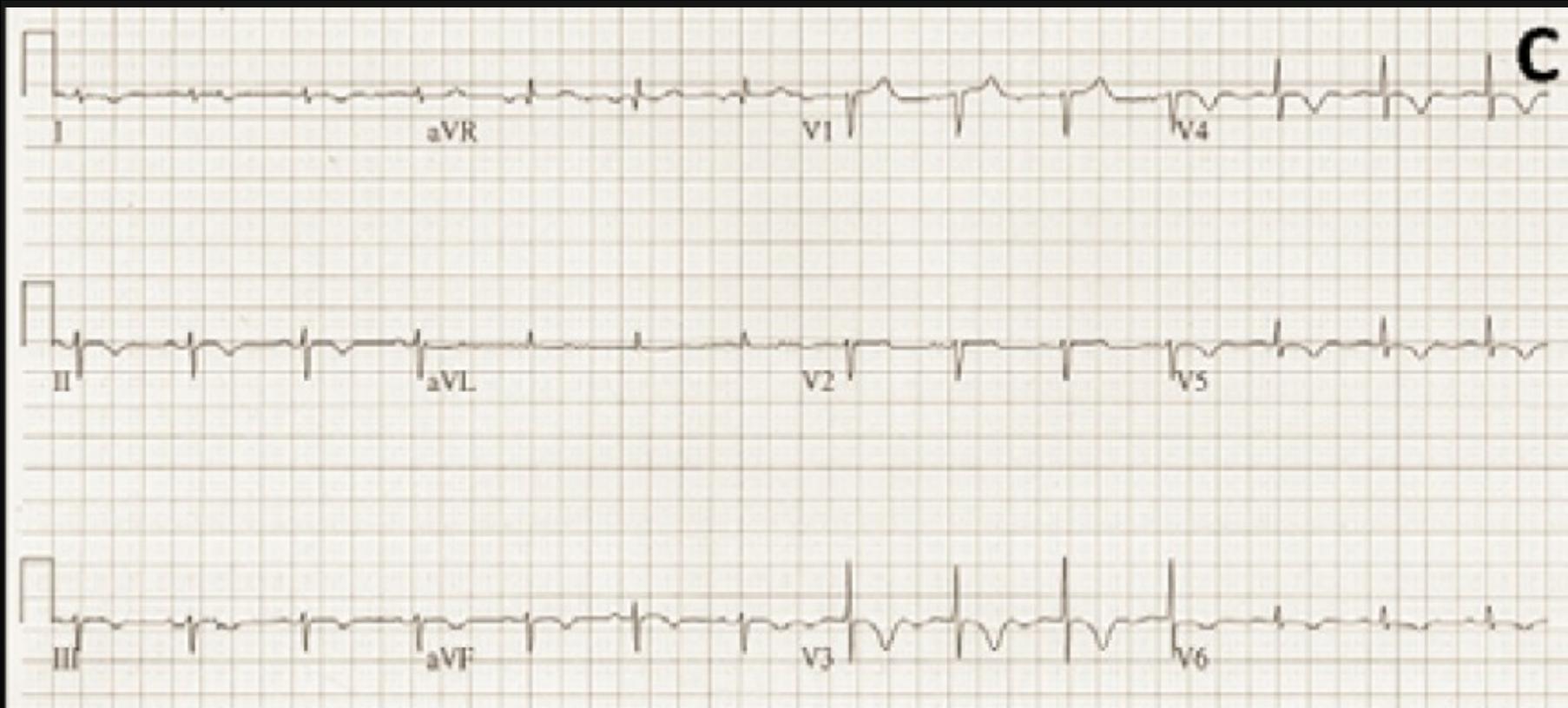
Lanzillo, Fiore Candelmo, Emilio Di Lorenzo,  
and Giovanni Stanco



Volmann, Ned J Med, 2011

**L'inversione dell'onda T può persistere per diversi mesi**



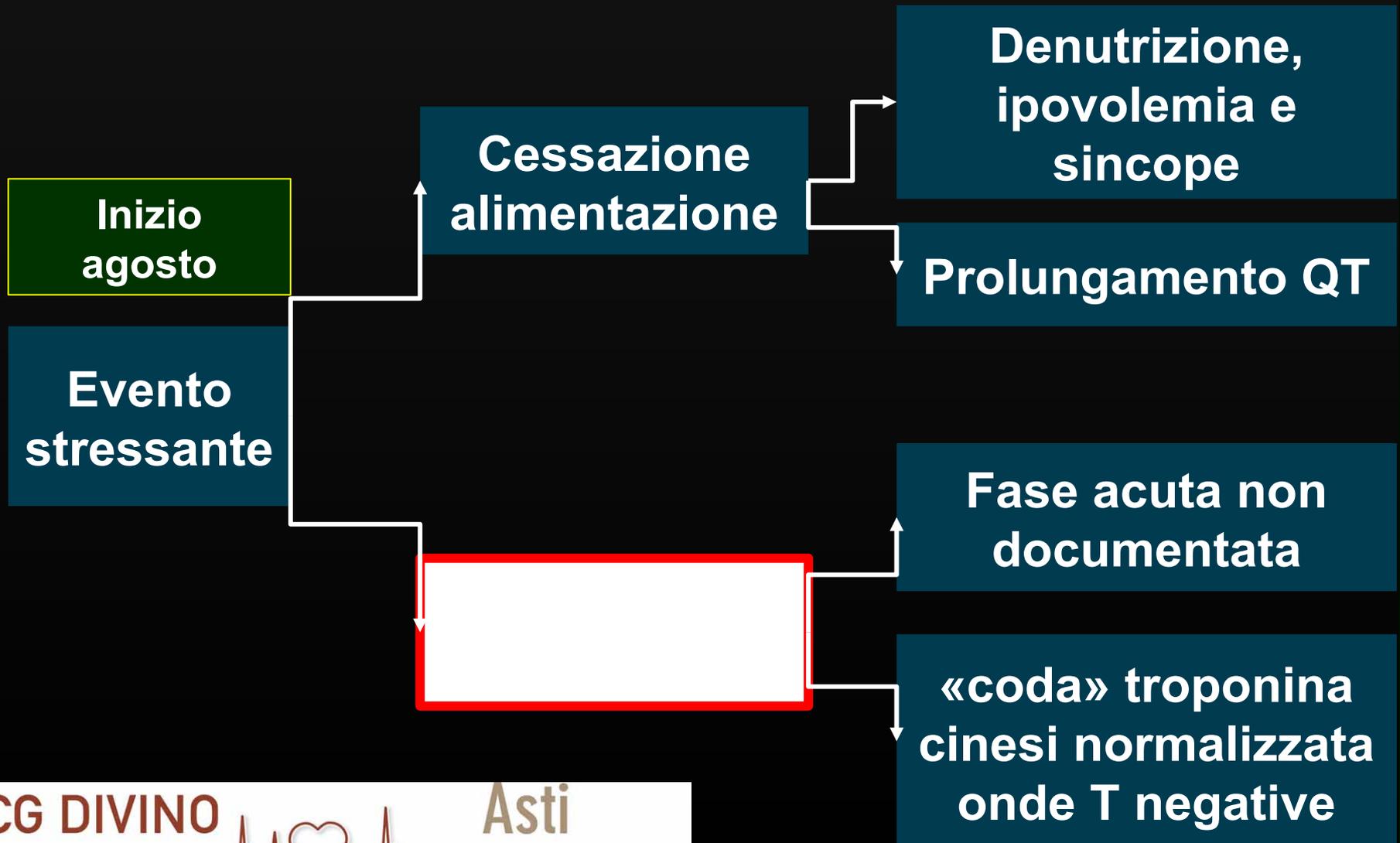


Volmann, Ned J Med, 2011

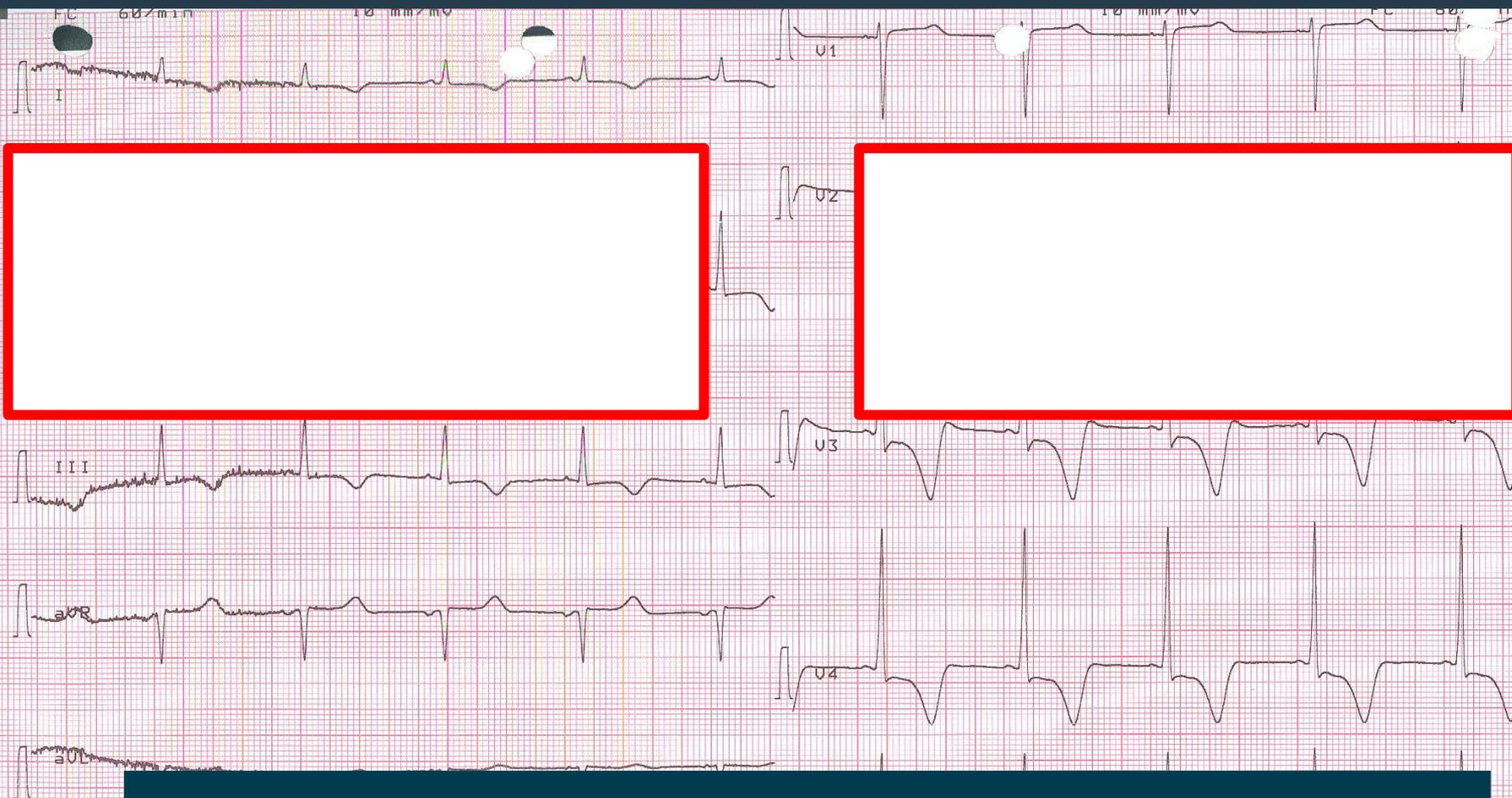
**L'inversione dell'onda T può persistere per diversi mesi**



# Seconda ipotesi diagnostica



# Due ipotesi diagnostiche



**Evoluzione ECG nelle prossime settimane**

