

# **IAM hiperagudo en hombre de 61 años – 2008**

Dr. Andrés R. Pérez Riera

Este caso nos fornece grande ensinamento.

Paciente em fase hiper-aguda de infarto anterior.

O nivelamento do segmento ST na parede inferior permite deduzir que a obstrução da artéria DA é proximal e não distal.

Caso muito interessante para o fórum.

Andrés R. Pérez Riera

**Name:** CF  
**Weight:** 82 Kg  
**Medication:**

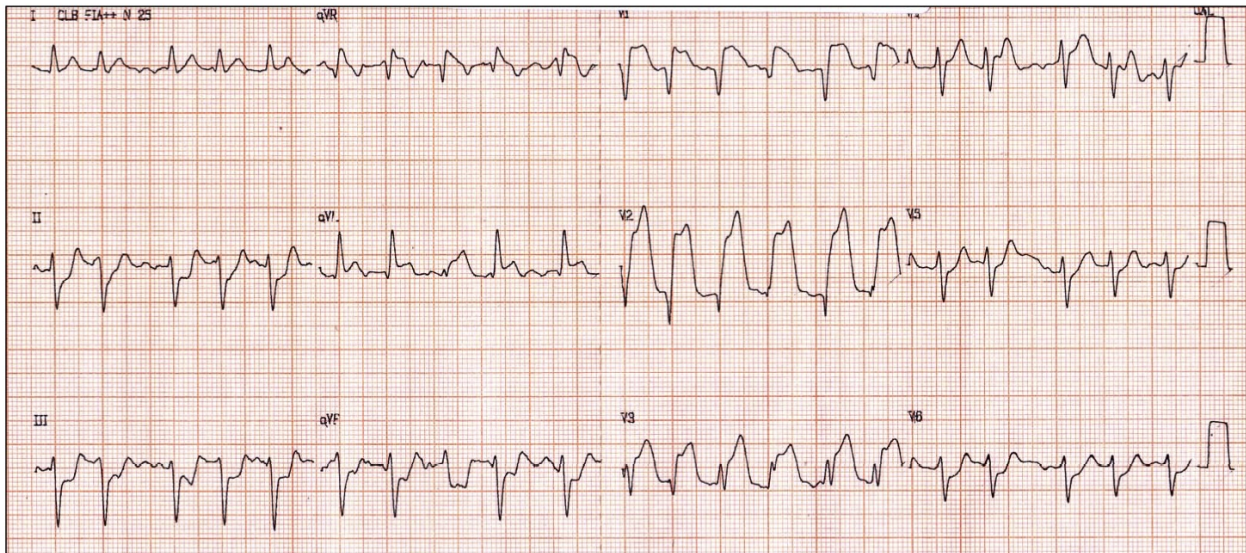
**Sex:** Male  
**Height:** 1,72 m

**Age:** 61 yo.  
**Biotype:** Normoline

**Race:** Caucasian

**Date:** 05/01/2008

**Time:** 11:25AM

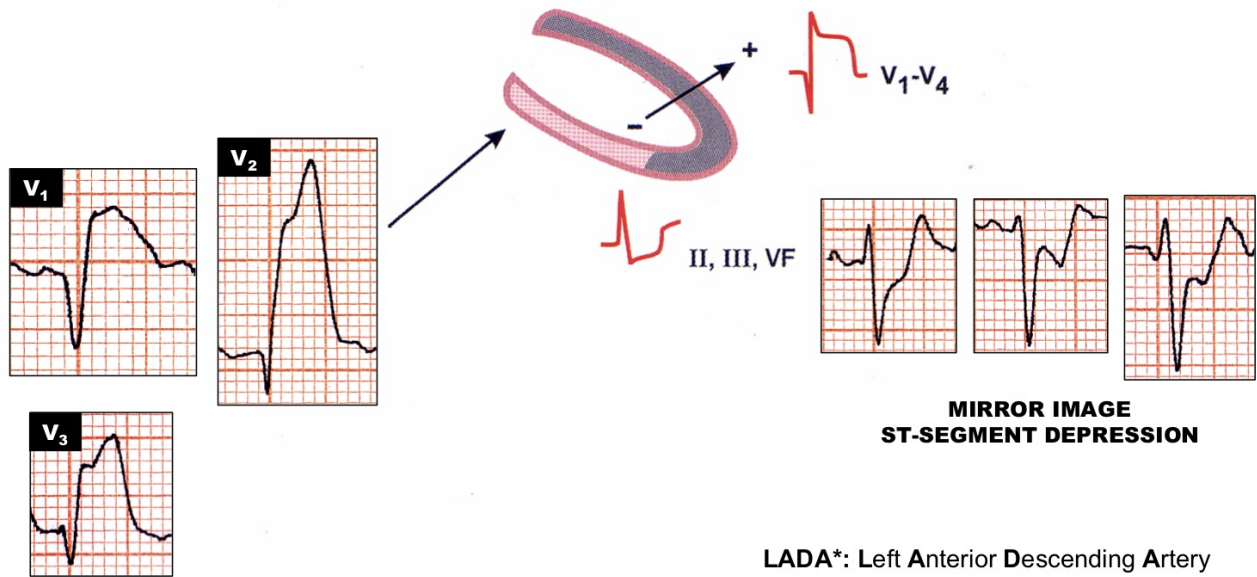


**Clinical Diagnosis:** Myocardial Infarction in hyperacute phase (<1 hour of typical clenched fist chest pain). Proximal obstruction of a long left anterior descending coronary artery.

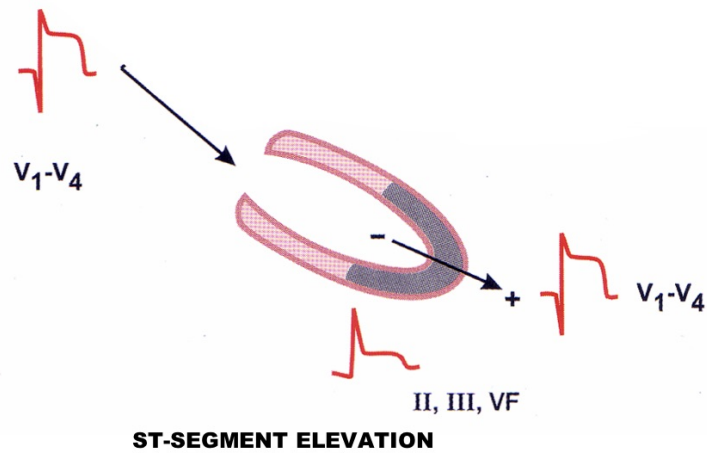
**ECG diagnosis:** Rhythm: atrial fibrillation with rapid ventricular response + LAFB + hyperacute phase anterior MI (anteroseptal zone).

**The question is:** which is the diagnosis following the new ECG classification of Q-wave myocardial infarction based on correlations with cardiac magnetic resonance ? A1, A2, A3 or A4?

## TYPICAL ECG PATTERN IN **PROXIMAL** OBSTRUCTION OF LADA\* (HYPERACUTE PHASE)



## TYPICAL ECG PATTERN IN **DISTAL** OBSTRUCTION OF LADA\* (HYPERACUTE PHASE)



LADA\*: Left Anterior Descending Artery

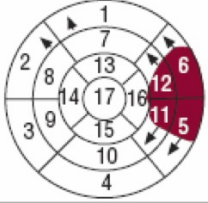





**THE ECG PATTERN OF Q-WAVE MYOCARDIAL  
INFARCTION (MI) OR Q-WAVE EQUIVALENTS WITH THE  
NAMES GIVEN TO MI AND RELATED INFARCTION AREA  
DOCUMENTED BY CARDIAC MAGNETIC RESONANCE**



## ANTEROSEPTAL ZONE

Types of MI	Infarct Area (MRI)	Electrocardiographic Patents	Name of the Infarct	More Probable Place of Occlusion
A1		Q in V1-2 SE: 86% ES: 98%	Septal	AD 
A2		Q in V1-2 to V4-V6 SE: 86% ES: 98%	Apical/ Anteroseptal	AD 
A3		Q in V1-2 to V4-V6 VL and Sometimes SE: 83% ES: 98%	Anterior Extense	AD 
A4		Q (qr or r) in I, VL, and Sometimes I, V2-3 and/or R5 in V1 SE: 70% ES: 100%	Anterior Limited	AD 

## INFEROLATERAL ZONE

Types of MI	Infart Area (MRI)	Electrocardiographic Patents	Name of the Infarct	More Probable Place of Occlusion
B1		Q (qr o r) in I, VL, V5-6 and/or R5 en V1 SE: 50% ES: 100%	Lateral	CX 
B2		Q in II, III, VF SE: 87,5% ES: 98%	Inferior	RC CX 
B3		Q in II, III, VF (B2) + Q in I, VL, V5, 6 and/or RS in V1 (B1) SE: 70% ES: 100%	Inferolateral	RC CX 



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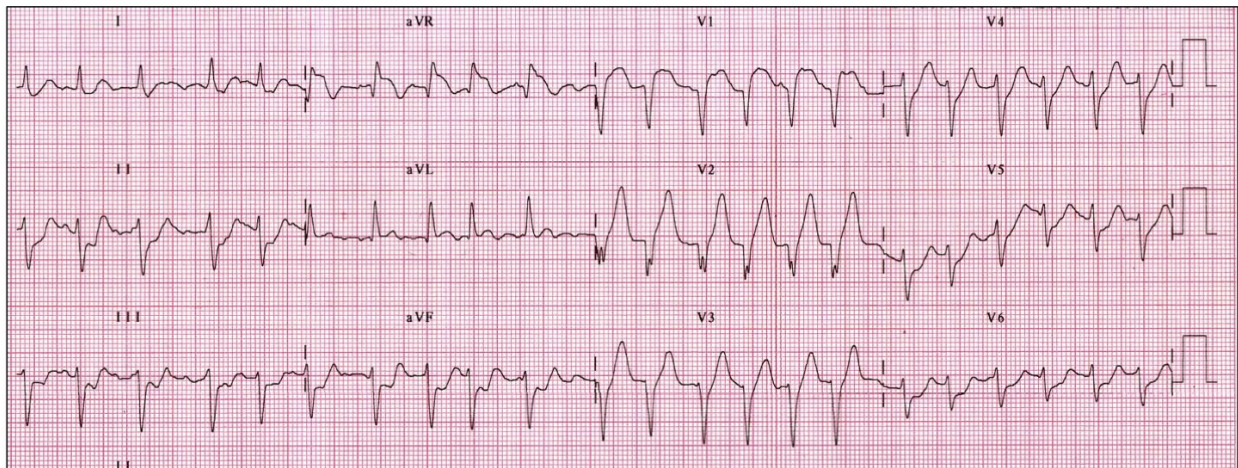
**Sex:** Male  
**Height:** 1,72 m

**Age:** 61 yo.  
**Biotype:** Normoline

**Race:** Caucasian

**Date:** 05/01/2008

**Time:** 11:44AM



**Clinical Diagnosis:** Myocardial Infarction in hyper acute phase.

**ECG diagnosis:** Rhythm: atrial fibrillation with rapid ventricular response (134bpm average), S<sup>A</sup>QRS: -80°, SIII > SII: Left Anterior Fascicular Block, anteroseptal infarct, QT/QTc: 324/484 ms, QT interval long for rate.

**Angiography:** RCA: 75% proximal stenosis + Mg from Cx artery 80%+ LDA 100% proximal obstruction

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**Medication:**

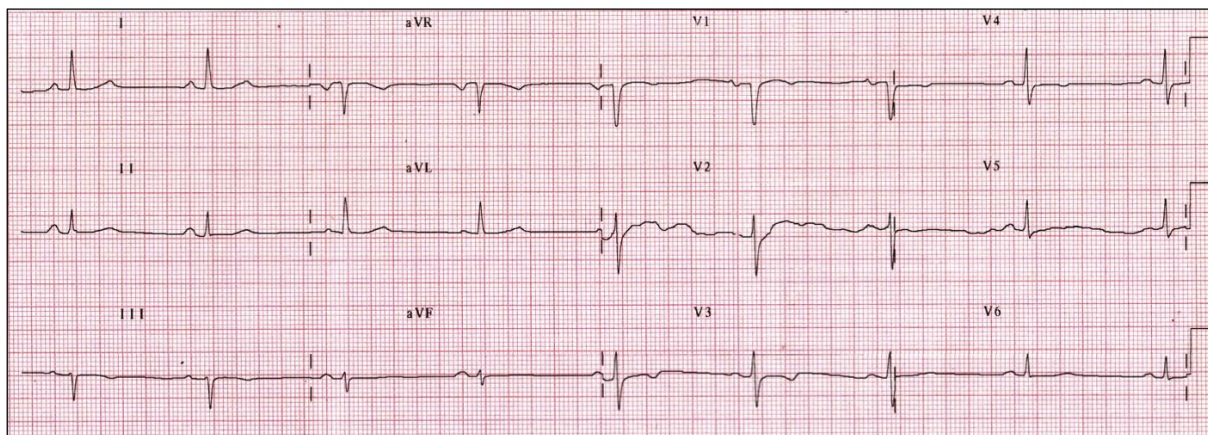
**Sex:** Male  
**Height:** 1,72 m

**Age:** 61 yo.  
**Biotype:** Normoline

**Race:** Caucasian

**Date:** 13/01/2008      **12 days after initial manifestation**

After Percutaneous Transluminal Coronary Angioplasty with 2 stent implantation in RCA and Marginal from Cx coronary artery



**Clinical Diagnosis:**  
**ECG diagnosis: ?**

Now there are not dromotropic intraventricular disorder (and return to sinus rhythm).

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**OPINIONES DE COLEGAS**

Estimados amigos:

En el ECG observamos como imagen más llamativa ascenso del STde V1-V4 y también en VR y VL con descenso marcado en II,III y VF. Por tanto está claro que la arteria afectada es la DA proximal a la primera septal (ascenso en VR , V1 y descenso V6) y también a la primera diagonal (descenso en II,III y VF). El descenso profundo en cara inferior nos orienta a que estamos ante una DA que seguramente no será muy larga. La presencia de fibrilación auricular puede indicar que la isquemia también se ha propagado a territorio auricular. Por lo tanto este tipo de SCA puede evolucionar, sino es abortado, a la patente A3 de la nueva clasificación de infartos propuesta por Bayés de Luna.

Saludos,

Javier García Niebla

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Saludos a todos: Con relación al excelente caso del Prof. Dr. Andrés R. Pérez Riera y tratándose de la primera pregunta, opino como el Dr. García Niebla que es un A3, hasta pronto,

Dr. Ricardo Pizarro.

Edgardinho esta abaixo é a resposta do meu caso apresentado no nosso foro de arritmia dado pelo próprio Prof. Antoni Bayés de Luna.

Por favor, enviar aos colegas do foro como diagnóstico final. Hoje de madrugada 4,30h!!! o Professor me deu suas explicações.

Comunico-lhes que o grande mestre acaba de lançar um novo livro simplesmente “divino” intitulado:

**“Electrocardiography in Ischemic Hear Disease Clinical and Imaging Correlations and Prognostic Implications”**

A editora é a Blackwell Futura e o ano 2008. O livro é extremamente inovador e original.

Com 332 páginas dedicadas ao tema.

Trata-se de um livro que não pode faltar na nossa biblioteca.

Andrés.

The new classification of Q wave-MI is for chronic MI.

In acute phase, as your case,. we use the algorithms published with M Fiol that are present in the book I sent you a few weeks ago (see p.99 and 103). According these algorithms, your case is a clear case of proximal to S1 and D1 LAD occlusion (ST ↑ V1 to V3 and VR, ST depression II, III, VF and V6). The problem is that without treatment this would be an A-3 type MI in chronic phase, but with treatment the size of infarction may be much smaller (see fig 2.3 p.my book).

I suppose that you have already received the big book (it was sent on 29 January by registered mail).

Looking forward to hearing from you.

With best regards

Antoni

A. Bayés de Luna

