

## IMAGE IN CARDIOLOGY

# De Winter pattern: An ST-elevation myocardial infarction equivalent



## Padrão de De Winter: um equivalente de EAMCST

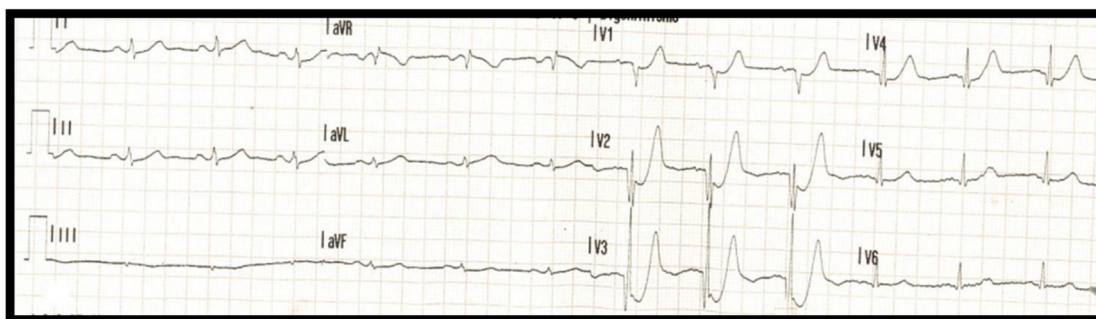
Margarida Paixão-Ferreira<sup>a,\*</sup>, Ana Rita Rocha<sup>b</sup>, Bruno Piçarra<sup>b</sup>, João Pais<sup>b</sup>, João Carvalho<sup>b</sup>, José Aguiar<sup>b</sup>

<sup>a</sup> Serviço de Medicina Interna, Hospital José Joaquim Fernandes, Beja, Portugal

<sup>b</sup> Serviço de Cardiologia, Hospital do Espírito Santo, Évora, Portugal

Received 19 September 2019; accepted 27 September 2019

Available online 9 September 2020



**Figure 1** Initial electrocardiogram showing a De Winter pattern (3–6 mm ST-segment depression with high symmetrical T waves in leads V2–V3).

A 47-year-old male, smoker, with hypertension and hypercholesterolemia, presented to the emergency department with oppressive chest pain starting two hours before. The initial electrocardiogram revealed sinus rhythm at 75 bpm and Q waves and 3–6 mm ST-segment depression with high symmetrical T waves in leads V2–V3 (Figure 1), with no

ST-segment elevation in leads V7–V9. A De Winter pattern was identified and the patient underwent emergent coronary angiography (Figure 2), which revealed occlusion of the proximal left anterior descending artery (LAD), followed by angioplasty and implantation of a drug-eluting stent. Electrocardiographic evolution showed QS without T waves in leads V1–V4 (Figure 3).

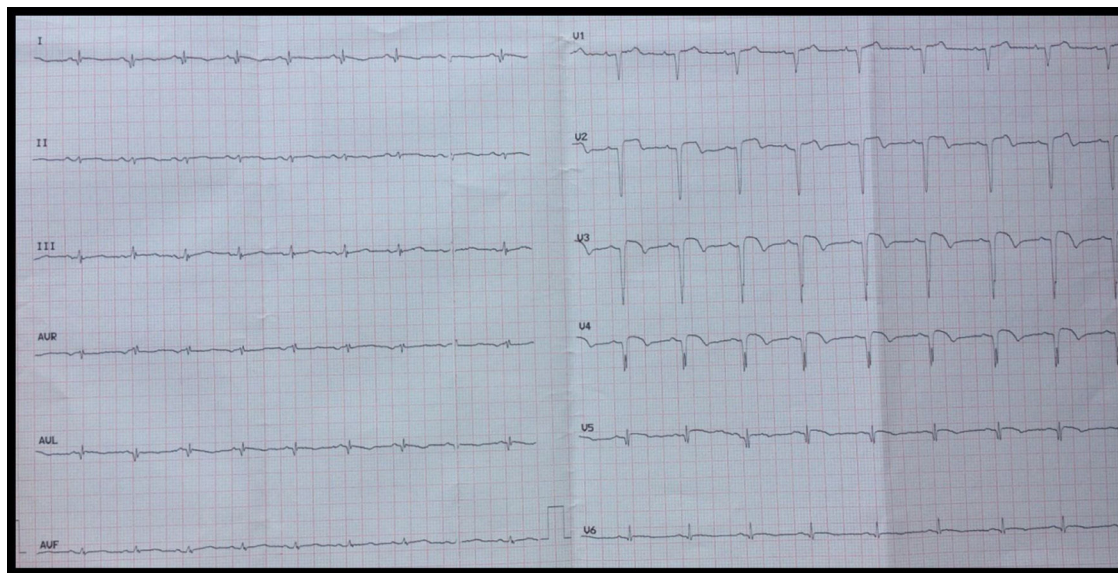
A De Winter pattern, characterized by ST-segment depression in precordial leads with high-amplitude positive T waves, usually reflects proximal LAD occlusion. This pattern is described in about 2% of cases of anterior

\* Corresponding author.

E-mail address: [margaridarpf19@hotmail.com](mailto:margaridarpf19@hotmail.com)  
(M. Paixão-Ferreira).



**Figure 2** Angiography frame showing occlusion of the proximal left anterior descending coronary artery.



**Figure 3** Follow-up electrocardiogram after angioplasty, showing QS without T waves in leads V1-V4.

myocardial infarction and is considered an ST-elevation myocardial infarction equivalent. Early recognition is essential to enable emergent reperfusion therapy and improved prognosis.

### Conflicts of interest

The authors have no conflicts of interest to declare.