



Revista Portuguesa de  
**Cardiologia**

Portuguese Journal of **Cardiology**

[www.revportcardiol.org](http://www.revportcardiol.org)



ORIGINAL ARTICLE

## Comparison between diabetic and non-diabetic patients after successful percutaneous coronary intervention for chronic total occlusions in the drug-eluting stent era<sup>☆</sup>



Juan Ruiz-Garcia<sup>a,b,c</sup>, Rui Teles<sup>d</sup>, José-Ramón Rumoroso<sup>e</sup>,  
Henrique Cyrne Carvalho<sup>f</sup>, Francisco Javier Goicolea<sup>g</sup>, José Moreu<sup>h</sup>,  
Josefa Mauri<sup>i</sup>, Vicente Mainar<sup>j</sup>, Eulogio García<sup>k</sup>, Raul Moreno<sup>a,\*</sup>, for the CIBELES  
investigators

<sup>a</sup> Sección de Hemodinámica y Cardiología Intervencionista, Servicio de Cardiología, Hospital Universitario La Paz, Madrid, Spain

<sup>b</sup> Servicio de Cardiología, Hospital Universitario Quiron, Madrid, Spain

<sup>c</sup> Servicio de Cardiología, Hospital Universitario de Torrejón, Madrid, Spain

<sup>d</sup> Servicio de Cardiología, Hospital de Santa Cruz, Lisboa, Portugal

<sup>e</sup> Servicio de Cardiología, Hospital de Galdakao, Bilbao, Spain

<sup>f</sup> Servicio de Cardiología, Hospital de Santo Antonio, Porto, Portugal

<sup>g</sup> Servicio de Cardiología, Hospital Puerta de Hierro, Majadahonda, Spain

<sup>h</sup> Servicio de Cardiología, Hospital Virgen de la Salud, Toledo, Spain

<sup>i</sup> Servicio de Cardiología, Hospital German Trias i Pujol, Badalona, Spain

<sup>j</sup> Servicio de Cardiología, Hospital General, Alicante, Spain

<sup>k</sup> Servicio de Cardiología, Hospital Clínico San Carlos, Madrid, Spain

Received 24 June 2014; accepted 10 October 2014

Available online 1 April 2015

### KEYWORDS

Drug-eluting stent;  
Diabetes;  
Percutaneous  
coronary  
intervention;  
Chronic total  
occlusion

### Abstract

**Objective:** Diabetes mellitus and chronic total occlusions are associated with unfavorable outcome after percutaneous coronary intervention. We sought to assess the clinical and angiographic outcomes of diabetic and non-diabetic patients who underwent successful percutaneous revascularization of chronic total occlusions with drug-eluting stents.

**Methods:** Baseline clinical and angiographic characteristics, procedural details, nine-month angiographic follow-up and clinical events at 12 months were compared between 75 diabetic and 132 non-diabetic patients included in a clinical trial that randomized successful recanalization of chronic total occlusions to receive sirolimus- or everolimus-eluting stents.

**Results:** In both diabetic and non-diabetic groups there was a favorable non-significantly different angiographic result at nine months, with low in-stent late loss ( $0.14 \pm 0.60$  mm vs.

<sup>☆</sup> Clinicaltrials.gov Identifier: NCT00793221.

\* Corresponding author.

E-mail address: [raulmorenog@hotmail.com](mailto:raulmorenog@hotmail.com) (R. Moreno).

0.25±0.68 mm,  $p=0.305$ ) and rates of binary restenosis (4.0% vs. 10.6%,  $p=0.180$ ) and reocclusion (0.0% vs. 2.3%,  $p=0.334$ ). During follow-up similar survival from death (97.3±1.9% vs. 99.2±0.8%,  $\log$ -rank  $p=0.273$ ), acute myocardial infarction (100.0±0.0% vs. 97.7±1.3%,  $\log$ -rank  $p=0.192$ ), target vessel revascularization (88.7±3.8% vs. 88.2±2.9%,  $\log$ -rank  $p=0.899$ ) and stent thrombosis (100.0±0.0% vs. 97.7±1.3%,  $\log$ -rank  $p=0.192$ ) was observed. Furthermore, the presence of more diffuse peripheral and coronary artery disease and higher frequency of calcified lesions in diabetic patients did not lead to significant differences in the approach (20.0% vs. 25.0% radial approach,  $p=0.413$ ), strategy (6.7% vs. 3.8% retrograde strategy,  $p=0.353$ ), total stent length (48.1±24.6 mm vs. 49.2±23.9 mm,  $p=0.758$ ) or contrast volume (261.3±116.4 ml vs. 297.4±135.9 ml,  $p=0.109$ ) required for revascularization.

**Conclusions:** In the drug-eluting stent era, diabetic and non-diabetic patients have comparable favorable clinical and angiographic outcomes after successful percutaneous revascularization of chronic total occlusions.

© 2014 Sociedade Portuguesa de Cardiologia. Published by Elsevier España, S.L.U. All rights reserved.

## PALAVRAS-CHAVE

Stent revestido;  
Diabetes;  
Intervenção coronária percutânea;  
Oclusão crónica total

## Comparação entre os doentes diabéticos e não diabéticos após intervenção coronária percutânea bem sucedida nas oclusões crónicas totais na era dos *stents* revestidos

### Resumo

**Objetivos:** A diabetes *mellitus* e as oclusões crónicas totais estão associadas a resultados desfavoráveis após intervenções coronárias percutâneas. Procurámos avaliar os resultados clínicos e angiográficos dos doentes diabéticos e não diabéticos que se submeteram a revascularização percutânea bem sucedida da oclusão crónica total com *stents* revestidos.

**Métodos:** Características clínicas e angiográficas de base, detalhes técnicos, seguimento angiográfico a 9 meses e eventos clínicos a 12 meses foram comparados entre 75 doentes diabéticos e 132 não diabéticos incluídos num estudo clínico que aleatorizou a recanalização bem sucedida da oclusão crónica total para receber o *stent* revestido com sirolimus ou com everolimus.

**Resultados:** Em ambos os grupos diabéticos e não diabéticos houve um resultado angiográfico deiferente favorável e não significativo aos 9 meses com baixa taxa de *in-stent loss* (0,14±0,60 mm *versus* 0,25±0,68 mm,  $p=0,305$ ) e taxas de reestenose binária (4,0% *versus* 10,6%,  $p=0,180$ ) e reocclusão (0,0% *versus* 2,3%,  $p=0,334$ ). Durante o seguimento foi observada sobrevivência semelhante de morte (97,3±1,9% *versus* 99,2±0,8%,  $\log$ -rank  $p=0,273$ ), enfarte agudo do miocárdio (100,0±0,0% *versus* 97,7±1,3%,  $\log$ -rank  $p=0,192$ ), revascularização do vaso alvo (88,7±3,8% *versus* 88,2±2,9%,  $\log$ -rank  $p=0,899$ ), e trombólise de *stent* (100,0±0,0% *versus* 97,7±1,3%,  $\log$ -rank  $p=0,192$ ). Além disso, a presença de doença periférica mais difusa, de doença das artérias coronárias e frequência mais elevada de lesões calcificadas nos doentes diabéticos não implicou diferenças significativas na abordagem (abordagem radial 20,0 *versus* 25,0%,  $p=0,413$ ), estratégia (estratégia retrógrada 6,7% *versus* 3,8%,  $p=0,353$ ), comprimento total do *stent* (48,1±24,6 mm *versus* 49,2±23,9 mm,  $p=0,758$ ) e volume de contraste (261,3±116,4 ml *versus* 297,4±135,9 ml,  $p=0,109$ ), necessário para a revascularização.

**Conclusões:** Na era dos *stents* revestidos, os doentes diabéticos e não diabéticos podem apresentar resultados clínicos e angiográficos comparáveis e favoráveis, após revascularização percutânea da oclusão crónica total.

© 2014 Sociedade Portuguesa de Cardiologia. Publicado por Elsevier España, S.L.U. Todos os direitos reservados.

## Introduction

Diabetes mellitus (DM) and the presence of chronic total occlusions (CTO) have traditionally been considered two of the most powerful predictors for unfavorable outcome after percutaneous coronary intervention (PCI), and so both are still associated with a higher probability of

patients being referred for coronary artery bypass grafting (CABG).<sup>1,2</sup> Patients with DM have a higher rate of angiographic restenosis and major adverse cardiovascular events (MACE) than non-diabetic patients.<sup>3</sup> At the same time, CTO constitutes one of the most challenging scenarios for interventional cardiologists. Apart from the difficulties in achieving recanalization of the vessel, patients with

Download English Version:

<https://daneshyari.com/en/article/3020064>

Download Persian Version:

<https://daneshyari.com/article/3020064>

[Daneshyari.com](https://daneshyari.com)