

Impact of a specific risk factors unit intervention on clinical outcomes in patients with type 2 diabetes after myocardial infarction

M. Cayón¹ C. García-Figueras², A. Del Río³

Endocrinology and Nutrition Unit¹. Internal Medicine Unit². Cardiology Unit³.
Hospital S.A.S. Jerez de la Frontera, Jerez de la Fra., Spain.

Introduction

In our setting, it is quite common that control of major risk factors of patients with type 2 diabetes (T2D) after myocardial infarction (MI) is not made by specific risk factors units (SRFU). Here, we conducted a preliminary study to investigate the effects of a SRFU intervention on metabolic and cardiovascular outcomes in T2D patients who suffered from MI.

Methods/ Design

This retrospective and observational study was performed in one single centre. Data related to metabolic and cardiologic variables were collected at discharge and at 6 and 12 months of follow-up. Variables were compared according to whether risk factors control was made by SRFU or other specialties after discharge.

Results

Data from forty-eight patients were collected. Demographic and clinical data are summarized in *TABLE 1*.

27.5% were referred to SRFU after discharge. Antidiabetic treatment was changed in 48.7%. Among patients whose treatment was changed, add-on strategy was the most used way to switch it (63.2%). Patients referred to SRFU were more likely to undergo changes in treatment (81.8% vs 35.7%; $p = 0.01$).

A1C reductions were higher among patients under SRFU control at 6 and one year and rates of new hospitalizations due to heart failure as well as mortality by any cause were lower in SRFU group. Nevertheless, non-significant differences were observed between groups (*TABLE 2*).

Table 1: Demographic and clinical data.

Age (years; mean \pm SD)	70.6 \pm 8.7
Gender: male (%)	47.9
Current smokers (%)	10.4
Hypercholesterolemia	66.7
Hypertriglyceridemia	35.4
Hypertension (%)	79.2
<i>Microvascular complications:</i>	
Retinopathy (%):	25
Nephropathy (%):	25
Neuropathy (%):	12.5
Peripheral Arterial Disease (%)	79.2
Chronic renal disease (%)	75
<i>Number of antidiabetic treatments:</i>	
One drug (%):	47.8
Two drugs (%):	39.1
Three or more (%):	2.2

SD: standard division.

Table 2: Metabolic and cardiovascular outcomes according to referrals.

	At 6 months		At 12 months	
	SRFU	Others	SRFU	Others
A1C reduction (%)	-0.74	-0.69	-0.92	-0.65
LDLc reduction (mg/dL)	-73.7	-77	-36	-25.8
TG reduction (mg/dL)	-19.9	-29.4	-65.1	-67.6
BP on target (%)	75	74.1	62.5	73.9
New admissions due to HF (%)	18.2	21	0	5.5
Mortality; any cause (%)	0	13	0	5.5

SRFU: specific risk factors units; TG: tryglicerides; BP: blood pressure; HF: heart failure.

Non significant differences were observed between units at 6 and at 12 months.

Conclusions

Our results show a non-significant trend toward to improvement of metabolic and cardiovascular outcomes among patients that were referred to SRFU after MI.

These differences were more remarkable when follow-up time was longer.

Though further studies with a larger number of patients are ongoing in our Hospital, we conclude that referrals to a SRFU should be recommended in these patients.

