Investigating Cardiac Patients Outcomes: Results From the VIP-Cardio Survey

Siskou O[1,2] , Galanis P[1], Kousi D[3], Konstantakopoulou O[1], Karagkouni I[1], Petsios K[4], Kosmas I[4], Gkamalia Z[4], Darviri J[4], Iakovou J[4], Minogiannis P[4], Peleka P[1], Liarigkovinou A[5], Chatzika P[6], Palitzika D[6], Milkas K[6], Zarifis J[6], Katsi V[7], Charalampous G[7], Pagkozidis I[7], Belechakis S[7], Tsalamandris S[7], Papanikolaou A[7], Tsioufis K[7], Siafi I[7], Chatzopoulou M[8], Sygkouna D[8], Anagnostopoulou H[1], E, Merkouris A[9], Lamprinou K[9], Kosmitou M[1], Papastefanatos S[1], Angelopoulou D[1], Mangioris G[1], Vemmos K[10]*, Kaitelidou D[1]*

[1]National and Kapodistrian University of Athens, [2]University of Piraeus, [3]Cleo Research Center, [4]Onassis Cardiac Surgery Center, [5]University of West Attica, [6]Papanikolaou General Hospital of Thessaloniki, [7]Hippocratio General Hospital of Athens, [8]Laiko General Hospital of Athens, [9]Cyprus University of Tecnhology, [10]Hellenic Stroke Organization

* equal last authors

OBJECTIVES

The VIP-Cardio survey (Value-based Indicators for Patients-centered Cardiovascular Care) aims to provide essential data on cardiac Patients Reported Outcomes and Experiences from healthcare in Greece. Thus, herein we present data related to basic clinical outcomes and self-reported Quality of Life indicators from patients who suffered a first-onset Acute Myocardial Infarction (AMI) or underwent trans-catheter aortic valve implantation (TAVI).

METHODS

This prospective study was conducted from November 2022 to October 2024 (still in progress) in four public tertiary hospitals in Greece. Consecutive cardiac patients (AMI or TAVI) were registered and followed up at the point of discharge and six months after discharge. "Hard" clinical outcomes (i.e death) were reported. Also, cardiac patient-reported quality of life was recorded using both the generic EQ-5D-5L (1 indicating excellent quality of life) instrument and the disease specific Heart-Qol instrument (0 indicating worse quality of life-3 indicating excellent quality of life). Descriptive statistical analysis was performed using SPSSv.21.

RESULTS

Out of 565 **AMI** patients, only one person died during the acute phase, two during the hospitalization. and three during the six months follow –up. The Heart Qol score was found 2.3 at the point of discharge and 2.6 at the point of six months follow up (Table 1). Statistically significant improved Heart Qol scores (both at the point of discharge and at the point of six months follow up) were found for **men** (compared to women p=0.001 at discharge and p=0.004 at six months), for **younger age groups patients (<50 years)** (p=0.001 at discharge and p=0.016 at six months) and for those **patients who underwent angioplasty within the first 24hours after the event** (p=0.001 at discharge and p=0.013 at six months). The global EQ-5D-5L score was improved from 0.82 (0.2) at the point of discharge to 0.91 (0.15) six months after discharge (Figure 2). More than 1/5 of AMI patients and less than 1/10 of AMI patients reported (moderate to severe) stress and depression at the point of discharge and at the point of six months follow up.

In relation to **TAVI** patients (N=261) only one died during the aortic valve implantation (Table 2). The Heart Qol score was found 1.6 (SD=0.4) and. the global EQ-5D-5L score was found 0.52 (SD=0.26) at the point of discharge with almost 70% of the TAVI patients reporting (moderate to severe) stress and depression and 54.2% reporting (moderate to severe) pain and discomfort.
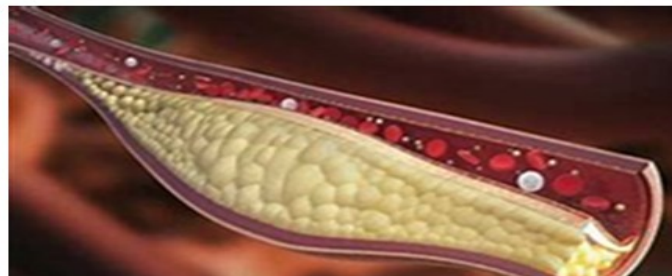
Table 2: Baseline clinical characteristics, use of health services and Outcomes of **TAVI** patients (N=261)

Ejection Fraction (mean, SD)		53.7 (8)
Mitral Regurgitation (MR) (n=138 with MR) (N, %)		
	1+	98 (71%)
	2+	37 (26.8%)
	3+	2 (1.5%)
	4+	1 (0.7%)
Aortic Regurgitation (AR) (n=120 with AR) (N, %)		
	1+	94 (78.4%)
	2+	22 (18.3%)
	3+	3 (2.5%)
	4+	1 (0.8%)
Carotid Artery Disease (N, %) YES		82 (34.9%)
History of CABG (N, %) YES		37 (15.3%)
Use of Health Services		
Type of Implant (N,%)		
	Self expandable	206 (78.9%)
	Ballon expandable	30 (11.5%)
	Not known	25 (9.6%)
Average Length of Procedure in minutes (mean, SD)		116.6 (28.5)
Outcomes		
Death during implantation (N, %)		1 (0.4%)
Heart Qol at the point of discharge (mean, SD)		1.6 (0.4)

	AMI (N=565)	TAVI (N=261)
♂	78.9%	51.5%
Age	63 years (SD 11.9)	81 years (SD 4.9)
🚬	84.4%	41.7%
	73.7%	91.7%
	73.1%	95.5%
DIABETES	25.8%	36.6%
	3.4%	2.9%

Figure 1: Demographic Characteristics and Risk Factors

Table 1: Baseline clinical characteristics, use of health services and Outcomes of **AMI** patients (N=565)

Type of AMI (N, %)		
	STEMI	260 (46.7%)
	Non STEMI	297 (53.3%)
Ejection Fraction (mean, SD)		46.6 (9)
Symptomatic Coronary Disease (N, %) YES		242 (43.5%)
Symptomatic Peripheral Arterial Disease (N, %) YES		37 (6.6%)
Atrial Fibrillation (N, %) YES		49 (8.8%)
Carotid Artery Disease (N, %) YES		19 (3.4%)
Vascular Disease-Stroke or TIR (N, %) YES		17 (3%)
Cancer (N, %) YES		12 (2.1%)
Use of Health Services		
Coronary Angiography (N, %)		532 (95.3%)
Average Length of Stay (mean, SD)		5.1 (2.8)
Outcomes		
Death during acute phase (N, %)		1 (0.2%)
Death during hospitalization (N, %)		2 (0.4%)
Death at the point of 6 months after discharge-n=179 (N, %)		3 (1.7%)
Heart Qol at the point of discharge (mean, SD)		2.32 (0.51)
Heart Qol at the point of six months follow up (mean, SD)		2.6 (0.41)

DISCUSSION - CONCLUSIONS

Most of the risk factors and outcomes were found to be consistent with the findings of other recent studies (Kanakakis et al., 2022-ILIAKTIS study, Zelis et al., 2020). However, to improve AMI and TAVI patient reported quality of life in Greece, more research is needed to outpoint its core determinants. However, based on our preliminary results, a clear need is stressed to better manage the psychological impacts of cardiac symptoms on patients in all phases of the provided care.

Average EQ5D score

- Pre-hospitalization: AMI patients 0,82; TAVI patients 0,5
- At the point of discharge: AMI patients 0,86; AMI patients' carers 0,86; TAVI patients 0,52
- At the point of six months follow up: AMI patients 0,91; TAVI patients 0,75
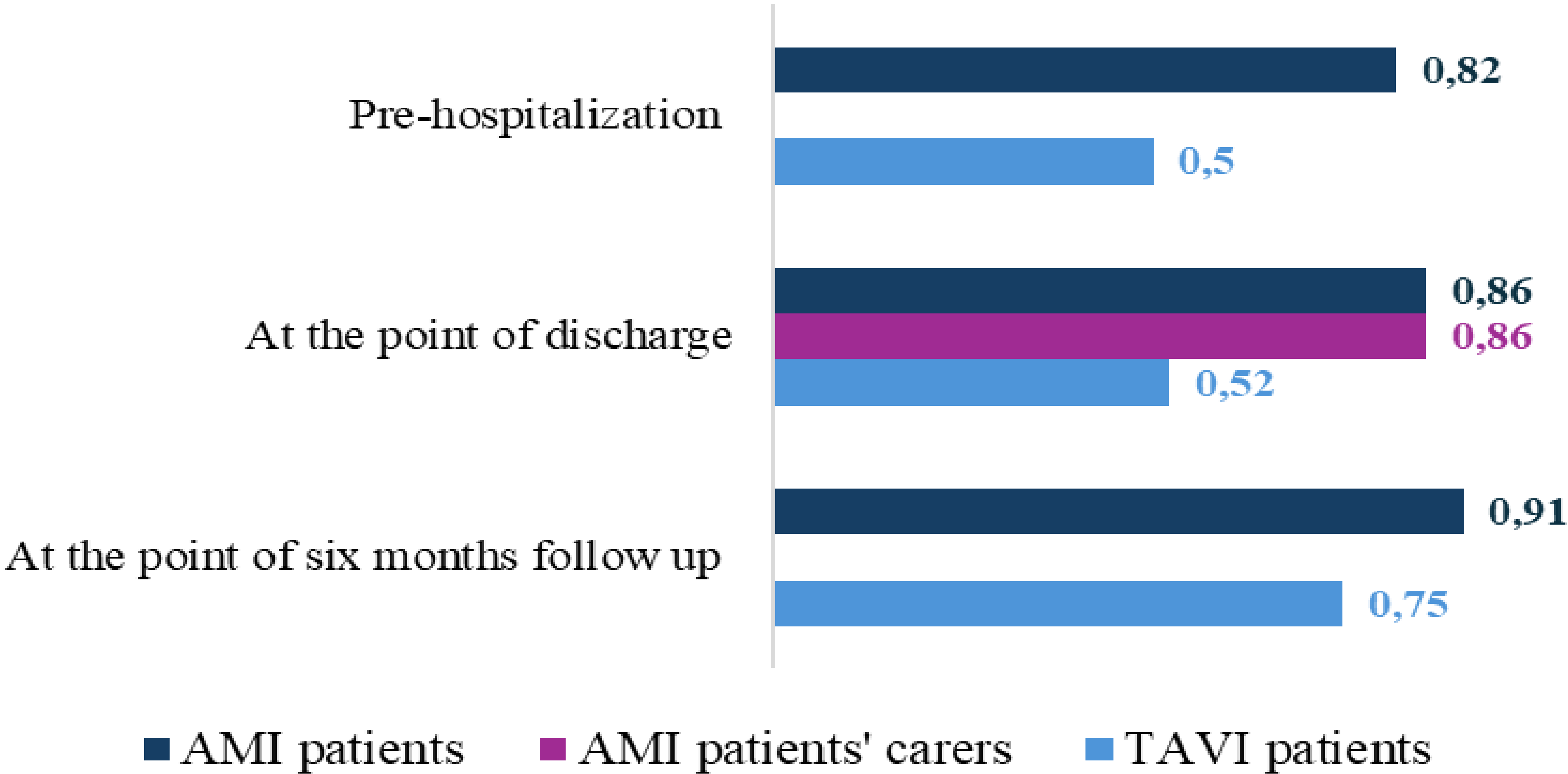
■ AMI patients   ■ AMI patients' carers   ■ TAVI patients

Figure 2: Average EQ5D score (1=excellent quality of life)

ISPOR Europe 2024
17-20 November 2024 | Barcelona, Spain