Implementation of the SFL Initiative began with work on physician education, patient education, EMS staff and problems, creation of an Egyptian Registry, and pilot PCI center detection. The first phase of the Egyptian SFL registry took place from May 2011 to January 2012. During this phase, a total of 1324 patients with ST-segment elevation MI (STEMI) were hospitalized. At the time there were 35 PCI hospitals, 20 of which had 24/7 primary PCI service. The mean time from symptom onset to first medical contact for all STEMI patients was 600 minutes. The mean time from first medical contact to the PCI center was 120 minutes; first medical contact to thrombolysis treatment was 420 minutes; PCI center arrival to p-PCI was 70 minutes.

PCI procedures were performed in 820 of the 1324 STEMI patients, with 688 (52%) p-PCI procedures (Table 1). A total of 21 (1.6%) patients received coronary artery bypass grafts; 18 (1.4%) received coronary angiography and medical treatment; 93 (7.0%) received medical treatment with no reperfusion. A total of 504 patients were treated with thrombolysis, with 147 (11.1%) undergoing rescue procedures, while 21 (1.6%) were treated with thrombolysis as part of a pharmaco-invasive approach. Of the 688 primary PCI procedures, GPIIb IIIa inhibitor was used in 424 patients (61.7%); thrombus aspiration was performed in 294 patients (42.7%); 545 patients (79.2%) received a bare metal stent.

Table 1. Distribution of the Studied Cases According to Reperfusion.

Variables	Total Number of Patients (n=1324)	
	Number	Percent
No Thrombolytic		
Primary PCI	688	52.0%
Sent to CABG	21	1.6%
Coronary angio and MT	18	1.4%
MT without angio	93	7.0%
Thrombolytic		
Rescue	147	11.1%
Facilitated	21	1.6%
Sent to CABG	9	0.7%
Coronary angio and MT	15	1.1%
MT without angio	312	23.5%

CABG=coronary artery bypass graft; MT=medical treatment; PCI=percutaneous coronary intervention.

The SFL-Egypt Action Plan for 2012 is shown in Table 2. The SFL public campaign will call on all members of the public to "look after the hearts of those that are close to them" to raise awareness among family, friends, colleagues, and social and business groups. Individuals and groups will be educated on the signs of a heart attack, the importance of acting quickly and calling an ambulance, and the benefits of p-PCI. Partners in the first phase of the public awareness campaign include medical, government, and industry organizations.

Table 2. 2012 Action Plan.

Year Quarter	Duties
One	• Launch of Egyptian registry • SFL session in Cardio Egypt 2012 • SFL session in Magdi Yaacoub Foundation conference • Pilot center Application-Committee • Start of public awareness campaign (Alexandria and Cairo regions)
Two	• SFL Session in CardioAlex 2012 • Education program (guidelines, physical education, satellites) • Start of public awareness campaign (Alexandria and Cairo regions) • Satellite meetings plan (Delta and Upper Egypt) • EMS education program (Alexandria and Cairo regions) • Vodafone application in ambulances • Industry partners meeting (June 2011)
Three	• Education program (guidelines, physical education, satellites) • Start of public awareness campaign (Delta and Upper Egypt) • Satellite meetings plan (Alexandria and Cairo regions) • Preparation EMS education plan
Four	• SFL Scientific Day in Egypt Intervention 2012 • EMS education program (Alexandria and Cairo regions) • Satellite meetings plan (Alexandria and Cairo regions)

EMS=emergency medical system; SFL=Stent for Life.

The SFL-Egypt mission for 2012 includes guidelines implementation and physician education, registry and questionnaire/database collection, pilot centers detection, media campaign; public/patient awareness campaign, and preparation of an Egyptian SFL map.

TAVI with Balloon and Self-expandable Devices: Results from the Milan Registry

Written by Toni Rizzo

Transcatheter aortic valve implantation (TAVI) is a viable treatment option for high-risk surgical patients with severe symptomatic aortic stenosis (AS). The SAPIEN XT™ (SXT) and CoreValve® with AccuTrak™ delivery system (MCVAT) are new generation devices currently available in Europe for transfemoral TAVI. To date, no prospective comparisons between these 2 devices have

been undertaken. The objectives of this study, presented by Alaide Chieffo, MD, San Raffaele Scientific Institute, Milan, Italy, were to assess the overall clinical outcomes of TAVI and to compare the SXT versus MCVAT devices in a nonrandomized registry population.

Patients enrolled in the Milan Registry (n=400) were evaluated with echocardiography to assess severity of AS, annulus size, and left ventricular ejection fraction (LVEF) and multislice computed tomography scan with echocardiogram-gating and contrast injection to evaluate the coronary arteries, annulus size, aorta, and the iliac and femoral arteries. The registry included patients treated with TAVI using either the SXT (n=144) or MCVAT (n=119) devices. Transfemoral access was the route of choice unless contraindicated.

The overall mean age was 79.4±7.4 years. The 30-day event rates in the overall population (n=400) using the Valve Academic Research Consortium definition were as follows: all-cause mortality (4.7%), cardiovascular (CV) mortality (3.6%), myocardial infarction (MI; 1.3%), stroke (1.0%), life-threatening bleeding (22.7%), major vascular complications (13.5%), and acute kidney injury (AKI) stage 3 (9.6%). The success rate for device delivery was 92.5%.

Analysis according to valve type showed important differences in baseline characteristic between patients receiving the SXT (n=132) versus the MCVAT (n=89), including the percentage of males (41.7% vs 58.4%; p=0.014), LVEF (54.5±11.3 vs 48.0±15.5; p<0.001), history of cerebrovascular disease (12.9% vs 3.4%; p=0.017), previous coronary artery bypass graft surgery (12.9% vs 26.1%; p=0.013), Society of Thoracic Surgeons score (7.4±6.5 vs 9.9±10.2; p=0.030), and aortic annulus diameter (23.3±1.8 vs 24.4±2.0; p<0.001). There was no significant difference between the 2 device groups in the rates of all-cause mortality, CV mortality, MI, stroke, life-threatening bleeding, AKI stage 3, major vascular complications, combined safety endpoint, combined efficacy endpoint, and moderate to severe prosthetic aortic regurgitation.

There were, however, significant differences between the SXT and MCVAT groups in the rates of valve embolization (0% vs 9.0%; p<0.001), need for 2 valves (1.5% vs 7.9%; p=0.021), conduction disturbances and arrhythmia (16.9% vs 36.0%; p=0.001), permanent pacemaker implantation (5.4% vs 32.6%; p<0.001), and device success (97.0% vs 89.9%; p=0.028; Table 1), favoring the patients treated with an SXT valve.

Prof. Chieffo concluded that TAVI is a viable option for patients at high risk for surgical aortic valve replacement in her center using both the SXT and MCVAT via a range of access routes.

Table 1. Safety and Efficacy Outcomes.

	SAPIEN XT™ n=132	Corevalve® n=89	p value
All-cause mortality	4 (3.3)	6 (7.0)	0.225
CV mortality	3 (3.5)	5 (5.8)	0.220
MI	1 (0.8)	2 (2.2)	0.359
Stroke	1 (0.8)	1 (1.1)	0.791
Life-threatening bleed	16 (12.5)	17 (19.1)	0.183
AKI stage 3	10 (7.8)	4 (4.5)	0.345
Major vascular complication	17 (13.0)	9 (10.1)	0.518
Combined safety endpoint	33 (25.0)	25 (28.1)	0.609
Combined efficacy endpoint	16 (12.1)	16 (18.0)	0.225
Valve embolization	0	8 (9.0)	<0.001
Need for 2 valves	2 (1.5)	7 (7.9)	0.021
Moderate to severe prosthetic AR	3 (2.3)	4 (4.6)	0.355
Conduction disturbances and arrhythmia	22 (16.9)	32 (36.0)	0.001
PPM implantation	7 (5.4)	29 (32.6)	<0.001
Device success	128 (97.0)	80 (89.9)	0.028

AKI=acute kidney injury; AR=aortic regurgitation; CV=cardiovascular; MI=myocardial infarction; PPM=permanent pacemaker implantation.

Closure of the WATCHMAN LAA System May Provide an Alternative to Warfarin in Patients with Nonvalvular AF

Written by Rita Buckley

Samih Lawand, MD, King Fahad Medical City, Riyadh, Saudi Arabia, presented findings from a single center experience with the WATCHMAN left atrial appendage (LAA) closure.

Atrial fibrillation (AF) is the most common sustained cardiac arrhythmia. Estimated to afflict >5.5 million people in the United States alone, the number is expected to increase to >15 million by the year 2050 [Reddy VY et al. *Circulation* 2011].

In patients with AF, stroke is the number 1 cause of long-term disability and the third leading cause of death [Savelieva I et al. *Ann Med* 2007]. The rhythm increases a patient's risk of an ischemic stroke by 4- to 5-fold, and accounts for up to 20% of all ischemic strokes [Magnani JW et al. *Circulation* 2011].

Ischemic strokes occur in 5% of non-anticoagulated AF patients each year [Crandall MA et al. *Mayo Clin Proc*