



SFLI Reduces Mortality and Morbidity in Patients With STEMI

Written by Nicola Parry

Petr Kala, MD, PhD, Masaryk University and University Hospital Brno, Brno, Czech Republic, shared updates from the Stent for Life Initiative (SFLI; www.stentforlife.com), which aims to improve STEMI treatment in countries with lower rates of primary percutaneous coronary intervention (PPCI), thus reducing patient morbidity and mortality.

Although PPCI is the recommended treatment for patients with STEMI, one study showed that only about 55% of European patients with STEMI were treated with PPCI and that treatment availability varies considerably among countries [Widimsky P et al. *Eur Heart J*. 2009].

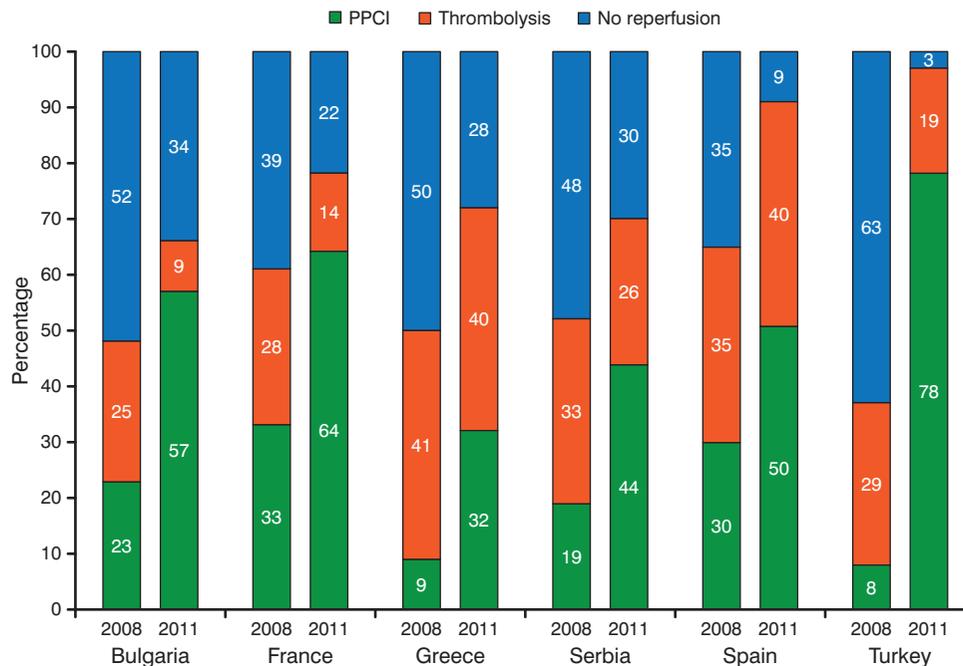
Consequently, the SFLI was launched in 2008 by the European Association of Percutaneous Cardiovascular Interventions (EAPCI) as part of European Society of Cardiology and EuroPCR. Its objectives include identifying countries or regions with an unmet medical need in the optimal treatment of acute coronary syndrome (ACS) and improving patient access to PPCI. Overall, the program aims to increase the use of PPCI to >70% among all

patients with STEMI and offer around-the-clock service for PPCI procedures at all invasive facilities in the country.

According to Prof Kala, access to PPCI has improved in countries involved in the SFLI since the program was implemented. From 2009 to 2013, for example, access to PPCI in Spain increased from 12.8% to 61.3% coverage [EAPCI, EuroPCR, ESC. *SFLI Newsletter*, 10th ed. 2014]. Additionally, implementing a PPCI network in Romania in 2010 had a significant impact on STEMI in-hospital mortality [Tatu-Chițoiu G et al. *EuroIntervention*. 2012]. The percentage of PPCI in the country increased from 25.0% in 2010 to 49.32% in 2011, and in-hospital mortality decreased from 13.5% to 9.93% from 2009 to 2011. Finally, in 2011, in-hospital mortality was lower in the percutaneous coronary intervention centers than in those without such facilities (7.28% vs 14.20%).

Sharing data from the 6 pilot countries enrolled in the SFLI in 2009, Prof Kala demonstrated considerable improvements in the management of patients with STEMI [EAPCI, EuroPCR, ESC. *SFLI Newsletter*, 10th ed. 2014]. Between 2007 and 2011, the use of PPCI increased from 23% to 57% in Bulgaria, 33% to 64% in France, 9% to 41% in Greece, 19% to 44% in Serbia, 30% to 50% in Spain, and 8% to 78% in pilot regions of Turkey. This increased use of PPCI was accompanied by a simultaneous decrease in

Figure 1. Trends in Management of Patients With STEMI From 2008 to 2011



PPCI, primary percutaneous coronary intervention.

Source: Widimsky P et al. *Eur Heart J*. 2010. Reproduced with permission from P Kala MD, PhD.

the percentage of patients who did not receive any reperfusion therapy (Figure 1).

Nevertheless, Prof Kala emphasized that variation in the use of PPCI still persists among countries in Europe. However, he added that the initiative has expanded to address some specific factors, including sex disparities in patients' access to cardiovascular care and the early diagnosis and treatment of ACS, to increase female patients' access to reperfusion therapy. Cross-border issues are also being evaluated, he noted, because reimbursement of treatment and transport costs is a significant barrier to cross-border collaboration in the treatment of patients with STEMI.

The SFLI has launched a campaign called "ACT NOW. SAVE A LIFE," which aims to improve the public's awareness of heart attack symptoms, urging people to act quickly and call emergency medical services to allow them to receive lifesaving PPCI treatment. However, despite its name, the SFLI is not solely focused on stent use; it is about reperfusion and improving patient care in general, Prof Kala concluded.

Update on the WOMEN Initiative to Address Gender Inequalities in Interventional Cardiology

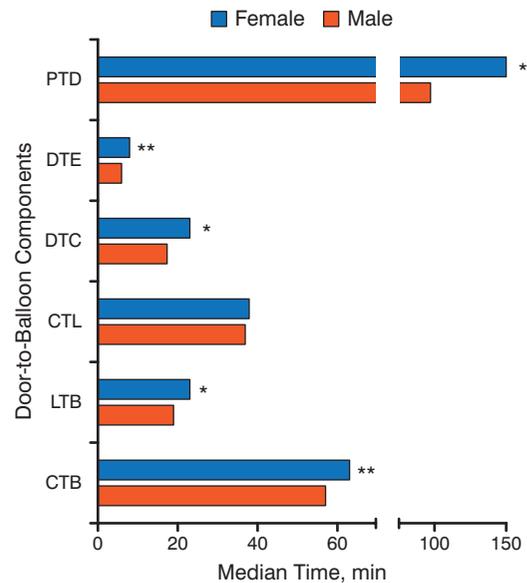
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Josepa Mauri, MD, PhD, Germans Trias i Pujol University Hospital, Badalona, Spain, presented an update on the WOMEN Initiative of the European Association of Percutaneous Cardiovascular Interventions (EAPCI). The initiative was developed to tackle gender inequalities in interventional cardiology at both the patient and professional level.

Over the last 2 decades, advances in the diagnosis and management of acute coronary syndromes (ACSs) have led to reduced cardiovascular disease (CVD) mortality rates among men. However, CVD remains the leading cause of death among women.

Women with CVD also face unique challenges when compared with men. In addition to experiencing different symptoms, women contend with longer referral times than men. Delayed referrals result in a more advanced disease state by the time the patient is seen, requiring more urgent or emergent procedures [Blomkalns AL et al. *J Am Coll Cardiol.* 2005]. Longer door-to-balloon times have been shown in women vs men with STEMI ($P < .001$), along with delays in each step from onset of pain to hospital arrival, door to examination, and door to diagnosis of STEMI (Figure 1) [Dreyer RP et al. *Heart Lung Circ.* 2013].

Figure 1. Gender Differences in Door-to-Balloon Times in STEMI



CTB, call-to-balloon time; CTL, STEMI code to laboratory; DTC, door to catheterization; DTE, door to examination; LTB, laboratory to balloon; PTD, pain to door.

* $P < .05$. ** $P < .001$.

Adapted from *Heart, Lung and Circulation*, 22, Dreyer RP et al, Evaluation of Gender Differences in Door-to-Balloon Time in ST-Elevation Myocardial Infarction, 861-869, Copyright (2013), with permission from Australian and New Zealand Society of Cardiac and Thoracic Surgeons and the Cardiac Society of Australia and New Zealand.

The prominent gender gap in the management of acute myocardial infarction (AMI) therefore leads to increased mortality in women. Data from a study in France also demonstrated an increase in the incidence of STEMI in women < 60 years old, which can be largely attributed to an increased rate of smoking in this age group [Puymirat E et al. *JAMA.* 2012].

However, no differences were seen in any of the clinical outcomes between men and women with ACS treated with contemporary drug-eluting stents (Figure 2) [Fath-Ordoubado F et al. *Am J Cardiol.* 2012].

With these statistics in mind, the EAPCI developed the WOMEN initiative. By better understanding gender-related disparities, the initiative seeks to ultimately achieve gender equality in interventional cardiology. According to Prof Mauri, approximately 60% of medical students are women, but 90% of interventional cardiologists are men. The WOMEN committee therefore comprises a community of female interventional cardiologists within the EAPCI whose mission is to encourage female physicians to choose a clinical or research interventional career. The committee also aims to increase awareness in the interventional and research community about gender inequality in the diagnosis and treatment of cardiac patients.