Transradial approach in acute myocardial infarction

Zdravko Babić*

University Hospital Center "Sestre milosrdnice", Zagreb, Croatia

Introduction of transradial approach in urgent interventional treatment of acute myocardial infarction (AMI) is one of the factors that led to optimization of the results of that treatment. Several non-randomised and randomised studies, as well as meta-analyses proved that transradial approach in comparison with transfemoral in the treatment of the AMI with urgent percutaneous coronary intervention ensure lower rate of the major adverse cardiovascular effects, bleeding and mortality and shorten hospitalization duration of those patients. Most of those studies thereby did not find statistically significant longer total ischemic or door-to-balloon time, as well as fluoroscopic time. Because of those results, European Society of Cardiology Guidelines of Management of Acute Myocardial Infarction in patients presenting with ST-segment elevation give a priority to transradial in comparison with transfemoral approach.¹⁻⁴

Department of Cardiovascular Diseases and Cath-lab of University Hospital Center Sestre Milosrdnice, Zagreb, Croatia are high-volume interventional centers. During

2012, 1611 coronarographies and 888 coronary interventions among which 453 urgent during treatment of AMI have been performed there. 85% of coronarographies and coronary interventions in center have been performed using transradial approach and author shows dynamics of introduction of transradial approach in the treatment of AMI, as well as several case-reports of those treatment.

KEYWORDS: transradial approach, percutaneous coronary intervention, acute myocardial infarction.

Received: 3rd Mar 2013

*Address for correspondence: Klinički bolnički centar "Sestre milosrdnice", Vinogradska cesta 29, HR-10000 Zagreb, Croatia.

Phone: +385-1-3787-965

E-mail: zbabic@net.hr

Literature

1. Singh PP, Singh M, Khosla N, Shah T, Molnar J, Arora R, et al. Safety and efficacy of transradial versus transfemoral percutaneous coronary intervention in acute myocardial infarction: a meta-analysis of randomized trials. *Coron Artery Dis.* 2012;23:284-93.
2. Valgimigli M, Saia F, Guastaroba P, Menozzi A, Magnavacchi P, Santarelli A, et al; REAL Registry Investigators. Transradial versus transfemoral intervention for acute myocardial infarction: a propensity score-adjusted and -matched analysis from the REAL (REgistro regionale AngiopLastiche dell'Emilia-Romagna) multicenter registry. *JACC Cardiovasc Interv.* 2012;5:23-35.
3. Genereux P, Mehran R, Palmerini T, Caixeta A, Kirtane AJ, Lansky AJ, et al; HORIZONS-AMI Trial Investigators. Radial access in patients with ST-segment elevation myocardial infarction undergoing primary angioplasty in acute myocardial infarction: the HORIZONS-AMI trial. *EuroIntervention.* 2011;7:905-16.
4. Task Force on the management of ST-segment elevation acute myocardial infarction of the European Society of Cardiology (ESC), Steg PG, James SK, Atar D, Badano LP, Blömlstrom-Lundqvist C, Borger MA, et al. ESC Guidelines for the management of acute myocardial infarction in patients presenting with ST-segment elevation. *Eur Heart J.* 2012;33:2569-619.