

# Dugotrajna bolovanja, odnosno invalidska mirovina nakon akutnog infarkta miokarda liječenog primarnom perkutanom koronarnom intervencijom? Da li je to neophodno?

## *Long-term sick leaves or disability pension after acute myocardial infarction treated by primary percutaneous coronary intervention? Is it necessary?*

Vjeran Nikolić Heitzler\*

Radna skupina za akutni koronarni sindrom, Hrvatsko kardiolosko društvo, Hrvatska  
*Working Group for Acute Coronary Syndrome, Croatian Cardiac Society, Croatia*

**U**svakodnevnom radu suočavamo se s naizgled neprihvatljivim situacijama. Naime, u Hrvatskoj je od 2005. godine zaživjela mreža primarne perkutane koronarne intervencije u akutnom infarktu miokarda s elevacijom ST-segmenta (STEMI), sa svake godine rastućim brojem intervencija u 12 centara diljem Hrvatske, gdje se perkutana intervencija provodi na bazi 24 sata tijekom sedam dana.<sup>1,2</sup> Od njezinog osnutka pa do kraja 2012. godine učinjeno je više od 8.000 intervencija s mehaničkim otvaranjem koronarne arterije. Na ukupno 6.000 perkutanih koronarnih intervencija tijekom 2012. godine, 2.222 su učinjene u akutnom STEMI, a više od 2.000 na preostale dvije poveznice akutnog koronarnog sindroma (ACS), tj. nestabilnoj angini pektoris i akutnom infarktu miokarda bez elevacije ST-segmenta (NSTEMI). Uspjeh ovih intervencija ovisan je od više činitelja, a primarno od vremena koje je proteklo od pojave simptoma do same intervencije, no nedvojbeno se radi o u svijetu prihvaćenom, favoriziranom i najuspješnjem vidu liječenja koronarnih bolesnika.<sup>3</sup>

Statističkom obradom hrvatskih podataka uočeno je da se u gotovo 50% bolesnika radi o osobama koje po životnoj dobi (<65 god.) odgovaraju radno aktivnom stanovništvu. Uspjeh ovih intervencija ne temelji se samo na spašavanju života, već i u vraćanju u svakodnevnicu normalnog života. Prateći ove bolesnike po intervenciji tijekom narednih mjeseci uočili smo da je veliki broj bolesnika (napominjem po uspješnoj intervenciji) na dugotrajnom bolovanju, gubi svoju profesionalnu radnu sposobnost, odnosno završava u invalidskoj mirovini. Smatramo da je to apsolutno krivo i da bi se ta situacija bliskom suradnjom liječnika obiteljske medicine, specijalista medicine rada i specijalista kardiologa mogla zadovoljavajuće promijeniti.<sup>4</sup>

Prema literaturnim podacima, a i našim saznanjima, navodi se činjenica da bolesnici po preboljelom srčanom infarktu,

In our daily work we are facing seemingly unacceptable situations. In Croatia since 2005, a network of primary percutaneous coronary interventions in acute ST-segment elevation myocardial infarction (STEMI) has become widely spread, with a growing number of interventions in 12 centers all over Croatia each year, where percutaneous interventions are performed at 24/7.<sup>1,2</sup> Since it was founded by the end of 2012 more than 8,000 interventions with mechanical opening of the coronary arteries have been performed. Out of a total of 6,000 percutaneous coronary interventions during the year 2012, 2,222 interventions were performed in acute STEMI, and more than 2,000 on the remaining two types of acute coronary syndrome (ACS), i.e. unstable angina pectoris and acute non-ST-segment elevation myocardial infarction (NSTEMI). The success of these interventions depends of many factors, but primarily on the time from the onset of the first symptoms to the intervention itself, but it is undoubtedly the internationally adopted, favored and the most successful type of treatment of coronary patients.<sup>3</sup>

Statistical analysis of Croatian data has showed that almost 50% of patients are persons that by their age (<65 years) are the working population. The success of these interventions is not only aimed at saving lives, but also returning the patients to normal everyday life. The follow-up of these patients upon completed intervention over the following months showed us that a large number of patients (I must point out upon the successful intervention) are on a long-term sick leave, losing their professional work capacity, or end up in disability pension. We believe that it is absolutely wrong and by close cooperation of family physicians, specialists in occupational medicine and specialist cardiologist this situation could satisfactorily change.<sup>4</sup>

According to the literature and to our knowledge, the fact is that patients upon a history of myocardial infarction who

koji nemaju medicinsku kontraindikaciju za nastavak profesionalne radne aktivnosti (npr. maligne aritmije, srčana insuficijencija, značajno snižena istisna frakcija lijeve klijetke), povratom na posao ne samo da imaju duži životni vijek, vjerojatnost je manja da će razviti ponovljeni srčani incident, a postotak neuroza i depresije je i do pet puta manji u odnosu na one koji su na dugom bolovanju, odnosno odlaze u mirovinu.<sup>5</sup> Za razliku od rezultata poljskih autora, a vrlo srodnih našim podacima gdje se tek 50-60% bolesnika vraća u profesionalnu radnu aktivnost, u zemljama Zapadne Europe i Sjedinjenih Američkih Država (SAD), ovaj postotak iznosi 70-95%. Bolesnici koji se ne vraćaju na posao imaju nešto veću učestalost teže višežilne koronarne bolesti, a dužina bolovanja je ovisna o lokalizaciji infarkta (infarkt prednje stijenke) i postignutom TIMI protoku nakon intervencije manjem od III.<sup>5-9</sup> Moderne smjernice značajno su smanjile razdoblje povratka na posao na 1-3 mjeseca nakon akutnog srčanog infarkta (medijan 50 dana) dok neki autori, a posebice u SAD, smatraju da je povratak na posao moguć već dva tjedna po nekomplikiranom srčanom infarktu.<sup>10</sup>

Prema podacima Hrvatskog zavoda za mirovinsko osiguranje ([www.mirovinsko.hr](http://www.mirovinsko.hr)) za listopad 2013. godine alarmant je odnos broja korisnika mirovina i osiguranika koji uplačuju doprinose za mirovinsko osiguranje i iznosi 1:1,23. U proteklih pet kriznih godina broj osiguranika smanjio se za 172.000 osoba, a istodobno se broj umirovljenika povećao za 70.000, što je Hrvatsku dovelo do ekonomski neodrživog omjera broja zaposlenih i umirovljenika. Tu bitku počeli smo gubiti još devedesetih godina, kad smo imali gotovo idealnu situaciju jer je na jednog umirovljenika dolazilo troje zaposlenih. Već u idućih pet godina taj je omjer pao na 1,81 zaposlenog na jednog umirovljenika i nastavio se nezaustavljivo smanjivati sve do danas. Prvo je slijedilo masovno gašenje tvrtki koje se rješavalo slanjem nezaposlenih u mirovinu umjesto na Hrvatski zavod za zapošljavanje. Hrvatska specifičnost je i velik broj invalidskih mirovina koje prima svaki peti hrvatski umirovljenik. Tako je od milijun i 218 tisuća hrvatskih umirovljenika trenutno samo 638.152 njih u starosnoj mirovini. Hrvatski umirovljenici prosječno su odrali 29 godina radnog staža, a samo njih 138.410 ili 12,28% je u mirovinu otišlo s više od 40 godina radnog staža. Trenutno je 56.615 umirovljenika mlađe od 54 godine.

U zaključku možemo istaći da bolesnici s uspješno provedenim kardiološkim postupcima, odnosno adekvatnim liječenjem najvećim dijelom ispunjavaju uvjete za nastavak profesionalne radne aktivnosti. Stoga je neophodno jačanje svijesti naših liječnika da im to možemo omogućiti, tj. vratiti ih u profesionalnu radnu aktivnost. Time ćemo u cijelini podići kvalitetu života u Hrvatskoj, a naravno i kardioloških bolesnika.

Received: 21<sup>st</sup> Nov 2013

\*Address for correspondence: Ksaver 10, HR-10000 Zagreb, Croatia.

E-mail: [vjeran.nikolic-heitzler@zg.htnet.hr](mailto:vjeran.nikolic-heitzler@zg.htnet.hr)

have no medical contraindication for continuing professional work activities (e.g. malignant arrhythmias, heart failure, significantly decreased left ventricular ejection fraction), not only have a longer life expectancy after they return to work, but they are less likely to develop a recurrent coronary event, and the rate of neurosis and depressions is up to five times lower in comparison to those who are on long-term sick leave or who retire.<sup>5</sup> Unlike the results of the Polish authors and very similar to our data, where only 50-60% of patients return to their professional work activity, in Western Europe and the United States of America, this percentage is 70-95%. Patients who do not return to work have a higher incidence of more severe multi-vessel coronary artery disease and the length of the sick leave is dependent on the localization of myocardial infarction (anterior wall infarction) and achieved TIMI flow after the intervention less than III.<sup>5-9</sup> Modern guidelines significantly reduced the period of return to work in 1-3 months after acute myocardial infarction (median 50 days) and some authors, especially in the U.S. think that patients can return to work already in two weeks after non-complicated myocardial infarction.<sup>10</sup>

The data provided by the Croatian Pension Insurance Institute ([www.mirovinsko.hr](http://www.mirovinsko.hr)) for October 2013 show the alarming ratio between pension beneficiaries and insureds who pay contributions for pension insurance which is 1:1.23. In the past five years marked by economic crisis, the number of insureds declined by 172,000 persons, while the number of pensioners increased by 70,000, which led Croatia to economically unsustainable ratio between the number of employees and pensioners. We started losing this battle in the nineties, when we had almost an ideal situation because the ratio between the employees and pensioners was three to one. Already in the next five years, this ratio dropped to 1.81 employee to one pensioner and continued to decline inexorably up to date. The first thing that happened is closing down of companies when unemployed people were retired instead to report to the Croatian Employment Agency. A specific phenomenon in Croatia is also a large number of disability pensions that each fifth Croatian pensioner receives. Consequently, out of a million and 218 thousand Croatian pensioners there are currently only 638,152 of them of the full retirement age. Croatian pensioners on average have done 29 years of service, and only 138,410 or 12.28% has gone into retirement after having reached 40 years of service. There are 56,615 pensioners younger than 54 years of age.

To conclude, we can point out that patients with successfully performed cardiac procedures, or who have undergone appropriate treatment largely meet the criteria for continuing their professional work activities. Therefore, it is necessary to strengthen the awareness of our physicians that doctors can enable them to return to work, that is, to their professional work activity. This will raise the overall quality of life in Croatia and naturally cardiac patients.

## Literature

1. Nikolić Heitzler V, Babić Z, Miličić D, et al. Results of the Croatian Primary Percutaneous Coronary Intervention Network for patients with ST-segment elevation acute myocardial infarction. Am J Cardiol. 2010;105(9):1261-7.
2. Widimsky P, Wijns W, Fadajet J, et al; European Association for Percutaneous Cardiovascular Interventions. Reperfusion therapy for ST elevation acute myocardial infarction in Europe: description of the current situation in 30 countries. Eur Heart J. 2010;31:943-57.
3. ESC Press Releases 2013. Heart attack patients return to work later and retire earlier if treatment is delayed. <http://www.escardio.org/about/press/press-releases/pr-13/Pages/heart-attack-patients-return-work-later-retire-earlier-treatment-delayed.aspx> (12.10.2013).
4. Babić Z, Nikolić Heitzler V, Miličić D, Biočina B, Bernat R.. Working ability after cardiovascular events or procedures. Cardiol Croat.2013;8(9):318.
5. Waszkowska M, Szymczak W. Return to work after myocardial infarction: a retrospective study. Int J Occup Med Environ Health. 2009;22(4):373-81.

6. Malina T, Rybicki A, Buczkowski B. [The frequency of resuming work among patients with ischemic heart disease after the second phase of rehabilitation]. Pol Merkur Lekarski. 1996;1(2):99-101.
7. Isaaz K, Coudrot M, Mohamed H, et al. Return to work after acute ST-segment elevation myocardial infarction in the modern era of reperfusion by direct percutaneous coronary intervention. Arch Cardiovasc Dis. 2010;103(5):310-6.
8. Abbas AE, Brodie B, Stone G, et al. Frequency of returning to work one and six months following percutaneous coronary intervention for acute myocardial infarction. Am J Cardiol. 2004;94:1403-5.
9. Farkas JP, Cerne K, Lainscak M, Keber I. Return to work after myocardial infarction listen to your doctor! Int J Cardiol. 2008;130:e14-6.
10. Grima A, Alegria-Ezquerra A. Reporting on coronary patients for return to work: an algorithm. E-journal of the ESC Council for Cardiology Practice. 2012;10(20). <http://www.escardio.org/communities/councils/ccp/e-journal/volume10/Pages/cardiovascular-risk-functional-capacity-coronary-patients-return-to-work-Grima-Alberto-Alegre%C3%ADA-Diego.aspx#.UpI8ntLuLTo> (23. 2. 2012).

## **22<sup>nd</sup> Annual Meeting of the Alpe Adria Association of Cardiology**

Opatija, Hotel *Admiral* — 4. do 7. lipnja 2014.

## **10. kongres Hrvatskoga kardiološkog društva s međunarodnim sudjelovanjem**

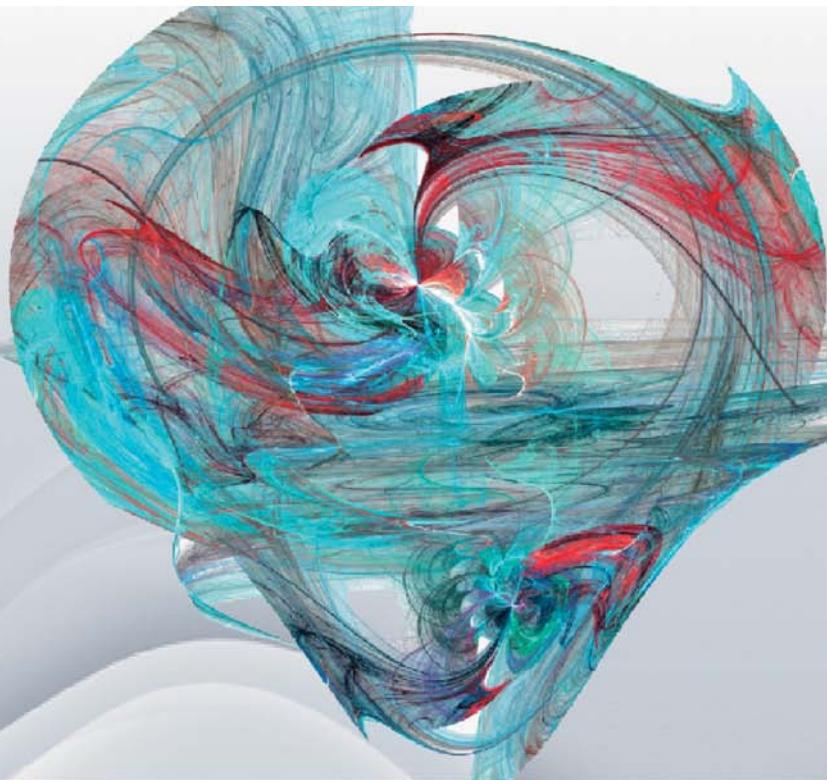
Zagreb, Hotel *Westin* — 6. do 9. studenoga 2014.



**HRVATSKO KARDIOLOŠKO  
DRUŠTVO**  
CROATIAN CARDIAC  
SOCIETY

Hrvatska kuća srca  
Zagreb, Hrvatska  
4. travnja 2014.

Croatian Heart House  
Zagreb, Croatia  
April 4th 2014



# **CRO-e-CARDIOLOGY 2014**

*Simpozij Radne skupine e-kardiologija  
Hrvatskoga kardiološkog društva s međunarodnim sudjelovanjem*

*Symposium Working Group on e-Cardiology  
of the Croatian Cardiac Society with international participation*

[www.kardio.hr](http://www.kardio.hr)