

Kontrola dislipidemije u bolesnika na ambulantnoj kardiovaskularnoj rehabilitaciji

Control of dyslipidemia in patients undergoing outpatient cardiovascular rehabilitation

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KLJUČNE RIJEČI: dislipidemija, kardiovaskularna rehabilitacija, kardiovaskularni čimbenici rizika.

KEYWORDS: dyslipidemia, cardiovascular rehabilitation, cardiovascular risk factors.

CITATION: *Cardiol Croat.* 2016;11(10-11):494-495. | DOI: <http://dx.doi.org/10.15836/ccar2016.494>

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Uvod: Čak će 1 od 4 pacijenta koji su otpušteni nakon akutnog koronarnog sindroma doživjeti infarkt, moždani udar ili kardiovaskularnu (KV) smrt tijekom sljedećih 5 godina.¹ Rizik ovih događaja najviši je tijekom prve godine od početnog KV događaja¹ i može se smanjiti liječenjem sukladno smjernicama i sudjelovanjem u programu KV rehabilitacije.² Cjeloviti pristup KV rehabilitacije koji uključuje procjenu KV statusa, terapijsku edukaciju, kardiovaskularni trening, psihodijagnostiku, postupke radne terapije, nefarmakološke i farmakološke mjere te uspješno obuzdava prisutni utjecaj čimbenika rizika.³ Cilj ovog rada je prikazati učestalost čimbenika KV rizika te kontrole dislipidemije u pacijenata uključenih u program ambulantne KV rehabilitacije i usporediti rezultate s dostupnim podacima.

Pacijenti i metode: Retrospektivno su analizirani podaci pacijenata uključenih u program ambulantne KV rehabilitacije u Poliklinici za prevenciju kardiovaskularnih bolesti i rehabilitaciju u Zagrebu tijekom 2015. godine, a koji su završili program do 25. ožujka 2016. godine. Prikazana je učestalost povišenog indeksa tjelesne mase, dislipidemije, arterijske hipertenzije, dijabetesa/intolerancije glukoze, aktivnog pušenja te učestalost primjene pojedinih doza statina, kao i kontrole dislipidemije kod pacijenata na hipolipemicima (ciljne vrijednosti LDL kolesterola < 1,8 mmol).

Rezultati: U analizu je uključeno 207 pacijenata. Vrijednost ITM-a ≥ 25 kg/m² registrirana je u 88,4%, dislipidemija u 78,7%, a arterijske hipertenzije kod njih 75,8%. Dijabetes/intolerancija glukoze registrirani su kod 27,5%, dok je aktivnih pušača tijekom programa ambulantne KV rehabilitacije bilo 13,5%. Rezultate kontrole dislipidemije prikazani su u **tablici 1**.

Diskusija i zaključak: U pacijenata na ambulantnoj KV rehabilitaciji prisutna je visoka učestalost čimbenika KV rizika, kao i u prethodno objavljenim podacima iz Poliklinike.⁴ U odnosu na podatke pacijenata iz nedavno objavljene EUROASPIRE IV studije,^{5,6} učestalost čimbenika rizika je identična, osim arterijske hipertenzije koja je češće prisutna u hrvatskih pacijenata (75,8% nasuprot 45,0%). Učestalost primjena statina, poglavito intenzivne statinske terapije je visoka, a kontrola dislipidemije je znatno bolja (58,4% nasuprot 25,6%)

Introduction: Even 1 of 4 patients discharged after acute coronary syndrome will suffer from a heart attack, stroke or cardiovascular (CV) death over the next five years.¹ The risk of these events is highest during the first year from the initial CV event¹ and can be reduced by treatment in accordance with the guidelines and participation in the CV rehabilitation program.² The full approach to the CV rehabilitation that encompasses the evaluation of the CV status, therapeutic education, non-pharmacological and pharmacological measures and cardiovascular training successfully reduces the present impact of risk factors.³ This paper aims to show the incidence of CV risk factors and controls of dyslipidemia in patients enrolled in the outpatient CV rehabilitation program and to compare the results with the available data.

Patients and Methods: The data on patients enrolled in the outpatient CV rehabilitation program in the Institute for Cardiovascular Disease Prevention and Rehabilitation in Zagreb in 2015 that completed the program by 15th March 2016 were retrospectively analyzed. The frequency of elevated body mass index, dyslipidemia, hypertension, diabetes/glucose intolerance, active smoking, and frequency of administration of individual doses of statins as well as the control of dyslipidemia in patients taking hypolipemic drugs (target values of LDL cholesterol <1.8 mmol) was showed.

Results: 207 patients were included in the analysis. The value of BMI ≥ 25 kg/m² was recorded in 88.4%, dyslipidemia in 78.7%, and hypertension in 75.8% of them. Diabetes/glucose intolerance was recorded in 27.5%, while there was 13.5 active smokers at the time of conducting the outpatient CV rehabilitation programs. The results of the dyslipidemia control are shown in **Table 1**.

Discussion and Conclusion: In patients undergoing the outpatient CV rehabilitation, there is a high prevalence of CV risk factors, as shown in the data previous published by the Institute.⁴ In comparison with the data on patients from the recently published study EUROASPIRE IV^{5,6}, the prevalence of risk factors is identical, except for hypertension that is more common in Croatian patients (75.8% versus 45.0%). The frequency of administration of statins, particularly intensive

RECEIVED:
October 3, 2016

ACCEPTED:
October 10, 2016



nego u EUROASPIRE IV studiji^{5,6}. Uspriko tome kod znatnog broja pacijenata vrijednosti LDL kolesterola nisu bile u željenim terapijskim vrijednostima.

statin therapy is high, while the control of dyslipidemia is much better than in the study EUROASPIRE IV^{5,6} (58.4% versus 25.6%). Despite this, the LDL cholesterol values did not equal the desired therapeutic values in a great number of patients.

TABLE 1. Control of dyslipidemia in patients enrolled in outpatient cardiac rehabilitation program.

Dyslipidemia	Number	%
<i>High-intensity statins</i>		
<i>atorvastatin 40 – 80 mg (135/157)</i>		
<i>rosuvastatin 20 – 40 mg (22/157)</i>	157	75.8%
<i>Standard dose of statins</i>	33	15.9%
Total on statins	190	91.8%
<i>Dyslipidemia control in patients on lipid-lowering medication, low-density lipoprotein <1.8 mmol/L</i>	111	58.4%

LITERATURE

1. Abu-Assi E, López-López A, González-Salvado V, Redondo-Diéguez A, Peña-Gil C, Bouzas-Cruz N, et al. The Risk of Cardiovascular Events After an Acute Coronary Event Remains High, Especially During the First Year, Despite Revascularization. *Rev Esp Cardiol (Engl Ed)*. 2016;69(1):11-8. DOI: <http://dx.doi.org/10.1016/j.rec.2015.06.015>
2. Authors/Task Force Members, Piepoli MF, Hoes AW, Agewall S, Albus C, Brotons C, Catapano AL, et al. 2016 European Guidelines on cardiovascular disease prevention in clinical practice: The Sixth Joint Task Force of the European Society of Cardiology and Other Societies on Cardiovascular Disease Prevention in Clinical Practice (constituted by representatives of 10 societies and by invited experts): Developed with the special contribution of the European Association for Cardiovascular Prevention & Rehabilitation (EACPR). *Eur J Prev Cardiol*. 2016;23(11):NP1-NP96. DOI: <http://dx.doi.org/10.1177/2047487316653709>
3. Ivanušić M, Narančić Skorić K, Glavaš Vražić S, Kruhek Leontić D, Heinrich M, Mažuran Brkjačić L, et al. Outpatient Cardiovascular Rehabilitation in Croatia. *Cardiol Croat*. 2015;10(1-2):28-42. DOI: <http://dx.doi.org/10.15836/ccar.2015.28>
4. Heim I, Leontić DK, Jonke V, Romcević M, Jembrek-Gostović M, Henezi I. Patients in cardiac rehabilitation programme--where we were in 1999 and where 10 years later. *Coll Antropol*. 2012 Jan;36 Suppl 1:59-63. PubMed: <https://www.ncbi.nlm.nih.gov/pubmed/22338748>
5. Kotseva K, De Bacquer D, Jennings C, Gyberg V, De Backer G, Rydén L, et al; EUROASPIRE Investigators, Amouyel P. Adverse Lifestyle Trends Counter Improvements in Cardiovascular Risk Factor Management in Coronary Patients. *J Am Coll Cardiol*. 2015;66(14):1634-6. DOI: <http://dx.doi.org/10.1016/j.jacc.2015.07.061>
6. Kotseva K, De Bacquer D, Jennings C, Gyberg V, De Backer G, Rydén L, et al; EUROASPIRE Investigators. Time Trends in Lifestyle, Risk Factor Control, and Use of Evidence-Based Medications in Patients With Coronary Heart Disease in Europe: Results From 3 EUROASPIRE Surveys, 1999-2013. *Glob Heart*. 2016 Mar 16. pii: S2211-8160(15)00295-1. DOI: <http://dx.doi.org/10.1016/j.gheart.2015.11.003>. [Epub ahead of print]