CLINICAL AND EPIDEMIOLOGICAL CHARACTERISTICS OF ACUTE CORONARY SYNDROME AND TREATMENT OUTCOME IN THE JABLANICA DISTRICT

Goran Cvetanović, Marija Stojiljković, Nebojša Dimitrijević, Jasmina Ranđelović

Cardiovascular diseases (CVD) were the main cause of death in Serbia in 2010. Of all CV deaths in 2010, 21.4% were caused by ischemic heart disease. Of all the fatalities from ischemic heart disease, 54.6% resulted from the acute coronary syndrome (ACS), whereas 45.4% were caused by other heart diseases.

The study aimed to establish the prevalence of ACS, to analyse the risk factors, forms of clinical presentation, and outcomes of the patients with ACS treated from 2006 to 2010 in the coronary unit (CU) in Leskovac.

The number of newly affected in the Jablanica district was significantly lower than the total number of the newly affected in Serbia. The average age of the patients with ACS, treated in the CU in Leskovac, was always lower than the average age of patients treated in the CUs in Serbia, but it was statistically significantly lower in 2006. Smoking, positive family anamnesis (71.4%), physical inactivity (61.5%), and stress (51%) of the patients with ACS treated in the CU in Leskovac were significantly present in comparison to all CU in Serbia. The most present form of ACS in the CU in Leskovac was myocardial infarction with ST elevation (STEMI) (69.7%). Rarely present form of ACS was myocardial infarction without ST elevation (NSTEMI) (24.4%), whereas the rarest form of ACS was unstable angina pectoris (UAP) (10.1%). In the CU in Leskovac, the number of STEMI was statistically and significantly higher, whereas the number of UAP was statistically and significantly lower in comparison to all CU in Serbia. The greatest percentage of patients with ACS was recovered (70.1%) both in all CU in Serbia and Leskovac (83.5%). The number of recovered patients in Leskovac was statistically and significantly higher.

Recognizing the factors of risk (FR) and their elimination and modification in healthy people is the basis for CVD prevention. Prompt using of measures for correction of cardiovascular factors of risk represents the best form of treatment and fight against this disease. *Acta Medica Medianae 2017;56(1):9-16.*

Key words: *ACS (acute coronary syndrome), STEMI (myocardial infarction with ST elevation), NSTEMI (myocardial infarction without ST elevation), UAP (unstable angina pectoris).*

General Hospital of Leskovac, Leskovac, Serbia

Contact: Marija Stojiljković
General hospital in Leskovac,
9 Rade Končar Street, 16000 Leskovac
E-mail: marijastojiljkovic986@gmail.com

Introduction

Cardiovascular diseases (CVD) are the main cause of death in both the developed and developing countries. In the beginning of the 20th century, every 10th individual died from CVD, whereas in the beginning of the 21st century, that percentage rose to 30%. Each year, 6 million people are affected by acute myocardial infarction (AMI), and 25% of these die of the disease. It is thought that by 2020, the diseases affecting the heart and blood vessels will have become the leading cause of death in all countries, especially in undeveloped ones (1). During 2010, 7.4 million people died of ischemic heart disease which was 13.2% of the total mortality rate (2).

The diseases of the circulatory system ranked first by the number of deaths in Serbia in 2010 (54.7%). Of that number, 21.4% died of ischemic heart disease. Among those dying of ischemic heart disease, 54.6% died of ACS, whereas 45.4% was left to other ischemic heart diseases (3).

The factors of risk for ischemic heart diseases (IHD) and acute coronary syndrome (ACS) are diverse, the most common of which are

smoking, hypertension, obesity, increased body mass, stress, positive family history for IHD/ACS, high levels of LDL cholesterol and triglycerides, diabetes, age, gender etc. All these factors of risk (FR) lead to coronary arteriosclerosis which underlies IHD and ACS. ACS appears as the consequence of myocardial ischemia caused by arteriosclerosis of the cardiac blood vessels. It includes the group of disorders which represent a different spectrum of diseases: unstable angina pectoris, myocardial infarction (with ST elevation and without ST elevation) and sudden cardiac death. These are chronic diseases that cannot be completely healed by medication. The treatment of these diseases is costly, and they are the most common cause of morbidity and mortality of the working population. It is therefore necessary that all preventive measures should be undertaken in order to prevent the disease.

The awareness of the risk factors and their adverse influence on human health should contribute to the fight for their eradication, significant for every individual and society as a whole. At the level of primary prevention, screening of CVD-free individuals for the presence of risk factors is necessary.

Aim of the research

Our aim in this study was to observe the ACS prevalence figures, to analyse the factors of risk, clinical characteristics of detection and outcome of the patients with ACS treated from 2006 to 2010 in all CUs in Serbia and Leskovac. A special aim of the study was to determine whether these parameters were significantly different among the patients with ACS in the CUs in Serbia in comparison to the patients with ACS treated in the CU in Leskovac.

Material and methods

This is a retrospective study with descriptive character. The data from the Republic Institute for Public Health in Serbia „Dr Milan Jovanovic Batut" was used as the resource for the basic analysis from the publication „Incidence and mortality from acute coronary syndrome in Serbia" in 2006 (4), 2008 (5) and 2010 (3).

The data was obtained from the report of the population register filled in the territory of Ser-

bia on the basis of a person's application with ACS. Population register for ACS contains data about the health facility which reported ACS, data about social-demographic characteristics of the diseased, ECG report of ACS, modes of treatment and outcome of the disease. The data was not collected only from the hospitals and CUs; the documentation of emergency centers, protocols of private clinics, and the Health Insurance Fund has been used as well.

Regional institutes and institutes for public health in the territory of all districts are in charge of keeping the regional registers, and the whole data base is updated and analysed by the Institute for Public Health „Dr Milan Jovanović Batut".

From all the data, the number of newly diseased, standardized incidence rates, number of deaths, standardized mortality rates for ACS, demographic characteristics of the patients (gender and average age), factors of risk in patients with ACS, diagnosis of ACS according to ECG changes and outcomes of the treated patients have been observed.

The data is shown in tables.

The listed standardized rates are standardized using the method of direct standardization, and the standard population which has been used was the population of the world (ASR-W) and Europe (ASR-E). The monitoring of the frequency of FR, clinical characteristics and treatment outcomes within hospital of the patients with ACS treated in Jablanica district and territory of Serbia was done using the appropriate statistic tests (chi-square test and t-test).

The results

In Table 1, the number of newly diseased, standardized incidence rates, the number of dead and standardized rates of mortality in Serbia annd Jablanica district are shown during the observed period. The number of newly diseased was statistically significantly lower in the Jablanica district in comparison to the total number of newly diseased from ACS in Serbia ($p < 0.01$).

The number of the dead and standardized mortality rates dropped in the observed period both in Serbia (from 51.0 in 2006 to 40.1 in 2010) and in Jablanica district (from 43.6 in 2006 to 34.7 in 2010). (Table 1)

Table 1. Number of patients, incidence rates, number of deaths, ACS mortality rates

	Year	Number of newly diseased	Stan. Incidence rate	Number of dead	Stan. Mortality rate
SERBIA	2006	21422**	152.9	7947	51.0
	2008	22058**	154.2	7158	45.1
	2010	22078**	151.3	6600	40.1
JABLANICA DISTRICT	2006	357	83	218	43.6
	2008	543	115.7	269	49.6
	2010	541	118	185	34.7

* $p < 0,05$, ** $p < 0,01$

Table 2. Gender distribution of ACS patients in all CUs in Serbia and in Leskovac

	Year	Male	Female	Total
ALL CUs IN SERBIA	2006	8137 (61.9%)	5004 (38.1%)	13141 (100%)
	2008	8328 (62.6%)	4982 (37.4%)	13310 (100%)
	2010	9274 (62.2%)	5624 (37.8%)	14898 (100%)
CU IN LESKOVAC	2006	108 (61.4%)	68 (38.6%)	176 (100%)
	2008	92 (60.5%)	60 (39.5%)	152 (100%)
	2010	225 (63%)	132 (37%)	357 (100%)

Table 3. Age of ACS patients in the CUs in Serbia and in Leskovac

Year	All CUs in Serbia	CU inLeskovac
2006	(16-97) 64.05±11.46	(30-84) 59.89±11.40 **
2008	(18-108) 64.24±11.74	(22-88) 62.86±11.49
2010	(22-110) 65.0±12.0	(34-88) 64.0±12.0

the data is shown as (min-max) average value ±SD
**$p<0.01$ a) significant difference from all CU in Serbia

Table 4. Factors of risk in ACS patients (1)

	Year	Smoking	Dyslipidemia	HTA	DM
ALL CUs IN SERBIA	2006	2360 (46.1%)	4795 (46.2%)	7046 (64.5%)	2631 (25%)
	2008	6504 (48.9%)	5589 (46.6%)*	8763 (71.4%)	3183 (26.3%)
	2010	4582 (32.1%)	6878 (50.7%)**	10049 (73.4%)	3817 (28.1%)
CU IN LESKOVAC	2006	93 (52.8%)**	75 (42.6%)	117 (66.5%)	43 (24.4%)
	2008	57 (37.5%)	42 (30%)	101 (70.1%)	24 (17.1%)
	2010	131 (36.7%)	100 (33.8%)	211 (69.4%)	91 (30.3%)

the data are shown as n (%)
*$p<0.05$, **$p<0.01$ a) significant difference from all CU in Serbia b) significant difference from all CU in Leskovac

Table 5. Factors of risk in ACS patients (2)

	Year	Inheritance	Obesity	Physical inactivity	Stress
ALL CUs IN SERBIA	2006	-	-	-	-
	2008	5527 (48.2%)	6290 (65.4%)	4280 (36.7%)	3164 (27.4%)
	2010	7178 (53.7%)	2111 (19.5%)	4985 (37.6%)	4177 (31.7%)
CU IN LESKOVAC	2006	-	-	-	-
	2008	86 (58.5%)*	91 (62.8%)	78 (54.2%)**	43 (30.5%)
	2010	215 (71.4%)*	53 (17.9%)	185 (61.5%)**	153 (51%)**

the data are shown as N(%)
*$p<0.05$, **$p<0.01$ a) significant difference from all CU in Serbia b) significant difference from all CU in Leskovac

Table 6. Diagnosis of ACS according to the ECG changes in patients admitted in Cus

	Year	Stemi	Nstemi	MI with the left bundle branch block	Unstable AP	Total
ALL CUs IN SERBIA	2006	7128 (54.2%)	2329 (17.7%)	134 (1%)	3550 (27%)**	13141 (100%)
	2008	6448 (48.4%)	3246 (24.4%)	269 (2%)	3347 (25.1%)	13310 (100%)
	2010	7887 (52.9%)	3650 (24.5%)	226 (1.5%)	3135 (21%)**	14898 (100%)
Cu in leskovac	2006	102 (58%)	43 (24.4%)	8 (4.5%)**	23 (13.1%)	176 (100%)
	2008	101 (66.4%)*	24 (15.8%)	1 (0.7%)	26 (17.1%)	152 (100%)
	2010	249 (69.7%)**	70 (19.6%)	2 (0.6%)	36 (10.1%)	357 (100%)

the data are shown as N(%)

*p<0.05, **p<0.01 a) significant difference from all CU in Serbia b) significant difference from all CU in Leskovac

Table 7.Outcomes of ACS patients treated in Cus

	Year	Recovered	Transferred to other facility	Fatal outcome	Unassigned	Total
ALL CUs IN SERBIA	2006.	9964 (75.8%)	482 (3.7%)	1181 (9%)	1514 (11.5%)	13141 (100%)
	2008.	9394 (70.6%)	1962 (14.7%)**	1036 (7.8%)	918 (6,9%)	13310 (100%)
	2010.	10438 (70.1%)	2139 (14.4%)**	1126 (7.6%)	1195 (8%)	14898 (100%)
CU IN LESKOVAC	2006.	167 (94.9%)*	2 (1.1%)	4 (2.3%)**	3 (1.7%)	176 (100%)
	2008.	145 (95.4%)*	3 (2%)	4 (2.6%)*	0 (0.0%)	152 (100%)
	2010.	298 (83.5%)*	21 (5.9%)	26 (7.3%)	12 (3.4%)	357 (100%)

the data are shown as N(%)

*p<0.05, **p<0.01 a) significant difference from all CU in Serbia b) significant difference from all CU in Leskovac

Distribution of patients with ACS by their gender in all CUs in Serbia and Leskovac during the observed period was identical without any great oscillations (Table 2). The differences in gender of the patients with ACS treated in the CU in Leskovac and all CUs in Serbia during the observed period were not statistically significant (p >0.05).

During the observed period, the average age of the patients with ACS in the CU in Leskovac was always lower than the average age of the patients with ACS treated in the territory of Serbia. In 2006, that difference was statistically significant (p <0.01), when the average age of the patients with ACS in the CU in Leskovac was 59.89 years. (Table 3).

The most common cardiovascular factors of risk for patients with ACS treated in Serbia and Leskovac are shown in Tables 4 and 5. Smoking (in 2006), positive family anamnesis, physical inactivity and stress were statistically significantly present in patients in the CU in Leskovac (p <0.01). The patients with dyslipidemia were significantly more common in the CUs in Serbia in comparison to patients treated in the CU in Leskovac (p <0.01).

By the factor of ECG changes observed in ACS patients, most of them had acute myocardial infarction with ST elevation (STEMI) both in Serbia as a whole and in Leskovac. In 2008 (p <0.05) and 2010 (p <0.01), statistically significantly more STEMI infarctions were noted in the CU in Leskovac in comparison to all CUs in Serbia (Table 6).

The number of patients with unstable angina pectoris (UAP) had a decreasing tendency in the observed period both in the CUs in Serbia and in Leskovac. There were statistically less UAP cases in 2006 (p <0.01) and in 2010 (p <0.01) in the CU in Leskovac, in comparison to all CUs in Serbia (Table 6).

In 2006, there were statistically significantly more myocardial infarctions with left bundle branch block in the CU in Leskovac in comparison to all CUs in Serbia (p <0.01).

The percentage of patients recovering from ACS was higher in the CU in Leskovac in comparison to the percentage of similar patients in all CUs in Serbia. This difference in numbers was statistically significant (p <0.05). The percentage of fatal outcomes the main cause of which was ACS was lower in the CU in Leskovac in comparison to all CUs in Serbia. During 2006 and 2008, there were statistically significantly less fatalities among the patients with ACS (p <0.05) in the CU in Leskovac in comparison to all CUs in Serbia (Table 7).

Discussion

ACS is the group of symptoms and signs that are the consequence of acute myocardial ischemia which is the result of arteriosclerosis of the coronary arteries (6, 7).

Biochemical or physiological characteristics of an individual (higher level of cholesterol, LDL cholesterol, triglycerides, and glucose in the blood (hyperglycaemia / diabetes), lower level of HDL cholesterol, high blood pressure, and hypertrophy of the left ventricular myocardium, obesity, and thrombogenic factors) represent modifiable risk factors. Personal characteristics of the patients (age, gender, early family onset of IBS, in men <55 years, and women <65 and earlier personal onset of IHD or some other arteriosclerotic disease, are unmodifiable risk factors. The impact of multiple risk factors for coronary arteriosclerosis is multiplied (the phenomenon of a multiplied risk). The intensity of FR and their duration are also important factors in the onset of coronary arteriosclerosis (8).

Lipid status, i.e. dyslipidaemia, has the central role in the appearance of an arteriosclerotic plaque. The risk of CVD is significantly lower if LDL values are below 4.2 mmol/l, even in the presence of other FRs (9). Activation of the renin-angiotensin system is very common in an individual with metabolic lipid disorders. Hypercholesterolemia and hypertension frequently accompany one another in a large number of patients. Increased triglyceride values lead to oxidative stress in the endothelium and improvement of the arteriosclerotic process. The correction of hyperlipidaemia is at the same time a prevention measure and treatment of arteriosclerosis. Therapy of hyperlipidaemia decreases the mortality from CVD by 30-40% and reduces the incidence of cardiovascular events (10). Physical inactivity can contribute to the appearance of an arteriosclerotic plaque. Prevalence of physical inactivity worldwide

is in the range from 31% to 51%. Because of insufficient physical inactivity, 1.9 million people die globally. Physical activity reduces the risk of cardiovascular diseases, influencing the metabolism of lipoproteins, blood pressure, function of endothelium, vasodilation, coagulation, fibrinolysis, sensitivity to insulin and body composition (11). Stress is one of the FRs to which a modern man is exposed to. The CVS is among the most stress-sensitive systems of our body. Under stress, heart frequency accelerates, heart contractions are stronger, and blood pressure rises. An accumulation of smaller stresses from long-term conflicts can lead to the appearance of CVD, development and the appearance of complications of coronary arteriosclerosis (12).

According to the data from a public health research of the residents of the Republic of Serbia in 2006, 46.5% of adults had hypertension. Hypertension was noted in higher percentage in those over 45 years of age, in males, and residents in the south-eastern part of the country (49.9%); 18.3% of the residents were obese, and 36.2% were pre-obese; two thirds of the residents spend their free time sitting; 61.7% of the residents were exposed to smoke in their homes. The prevalence of smoking was 33.6% and it was more common in men (38.1%) in comparison to women (29.9%). In the southeastern Serbia, the prevalence of smoking was 28.1%. Only 1% of smokers used the service of counselling for quitting smoking. Stress was the factor of risk present in 43,9% of the residents, and it was most frequent in persons aged 35-54. Exposure to stress was significantly more common in the residents of southeastern Serbia (48.3%). The co-unselling for lifestyle changes was recommended to 49.7% of adult residents of Serbia. A greater part of the residents (62.2%) did not change their habits that were harmful to their health, whereas 37.8% of the residents changed something in their behaviour towards health and the most common reason for the change in behaviour was disease (20.8%) (13).

The highest percentage of residents in Serbia thought that the most important factors for contracting the disease in Serbia were stress (73.1%), difficult socioeconomic conditions (56.6 %), and poor nutrition (33.3%) (13).

According to the research of the WHO about the prevalence of risk factors, Serbia is in the top place in the world in terms of arteriosclerosis and mortality from CVD (14).

According to the GRACE study, a prospective multinational study which included 31,982 patients with ACS from 184 hospitals in 25 countries from 2001 to 2007, 33% of all patients were women (15). In our country, among those affected with ACS there is a higher percentage of women in comparison to other parts of the world. Poor socio-economic conditions of women can be a posible explanation for this. Patients with ACS in the CU in Leskovac do not differ statistically significantly from those in all CUs in Serbia.

The average age of the patients with ACS in Serbia in the observed period was between 64 and 65 years. Among the patients treated for ACS in the CU in Leskovac during the observed period, the average age of the patients was lower. In 2006, the average age of ACS patients (59.89 years) in the CU in Leskovac was statistically significantly lower compared to the average age of patients in the CUs in Serbia. According to the data from GRACE study, the average age of ACS patients was 65 years. Around 24% of those with ACS were over 75 years of age (15). According to the data from the American Heart Association, the average age of men at the occurrence of their first myocardial infarction was 65.8 in the USA, and 70.4 years for women. Compared to men, women under 50 have twice as high a chance to die of AMI (16). A low socio-economic status, hard life conditions, increased level of stress, insufficiently developed awareness of people of the necessity of CV prevention and a reluctance to engage in the lifestyle change interventions, can be some of the reasons why patients in Serbia are affected by ACS much earlier.

The most common risk factors in patients with ACS in Leskovac were hypertension (69.4%), inheritance (71.4%), physical inactivity (61.5%) and stress (51%). During 2006, smoking was statistically significantly more present among the patients with ACS in the CU in Leskovac (52.8%). During 2008 and 2010, the factors of inheritance and physical inactivity were statistically significantly more common. Stress was significantly statistically more common among the patients in the CU in Leskovac in 2010. Dyslipidemias were statistically significantly less present in the CU in Leskovac.

A study conducted in Niš by N. Rančić et al. found that patients with AMI were significantly different from healthy examinees in terms of average BMI values, a more frequent positive family history for IHD/AMI, hypertension, diabetes (17); 30% of the patients had diabetes, 69% had hypertension, 51.30% had dyslipidaemia, 43.80% smoke cigarettes, 15.60% were under stress, 43% were physically inactive, and 54.40% had the component of inheritance.

From the published data, a conclusion can be drawn that smoking and dyslipidaemia were present less in the patients treated in the CU in Leskovac, and that positive family anamnesis, physical inactivity and stress were present in considerably higher percentages in comparison to the results of similar studies performed in Serbia, Niš and Sweden.

The largest number of patients with ACS had STEMI clinical characteristics, both in Serbia (52.9%) and in Leskovac (69.7%); 24.5% of the patients in Serbia had NSTEMI, whereas that percentage was 19.6% in Leskovac. The percentage of unstable angina pectoris was lower in Leskovac (10.1%) in comparison to Serbia (21%). STEMI was statistically and significantly more common in the CU in Leskovac (in 2008 and 2010). Myocardial infarction with left bundle branch block was statistically significantly more common in the CU in Leskovac in 2006. UAP was statistically and significantly less common among

the patients with ACS in the CU in Leskovac. A STEMI thrombus is rich with fibrins and it is most frequently totally occlusive, whereas in NSTEMI it is mainly thrombotic and partially or intermittently occlusive. In Serbia, STEMI is more prevalent than NSTEMI. Patients with STEMI have higher hospital mortality in comparison to NSTEMI (7% vs 5%, but after six months mortality rates were very similar for both conditions (12% vs 13%) (7). Some prodromakl symptoms such as new or different angina pain, dyspnea, unusual fatigue, precede the development and appearance of ACS. As soon as the first symptoms and signs appear, we should intervene in order to minimise the damage to the heart muscle. It is necessary to evaluate all patients with IHD and deterioration of symptoms and signs of the myocardial ischemia.

In Poland, of all ACS, unstable angina pectoris (42.2%) is the most prevalent, followed by STEMI (31.2%), and NSTEMI (26.6%) (18).

According to the data from the GRACE study, the largest number of patients was diagnosed with NSTEMI (31%), followed by STEMI (30%), and the lowest number had unstable angina pectoris (26%) (15).

The largest number of patients with ACS in Serbia were able to recover (70.1%). The percentage of recovered patients in the CU in Leskovac was higher (83.5%). The percentage of patients with fatal outcome was 7.6% in Serbia and 7.3% in Leskovac. The outcome in patients with ACS depends on the training, and human and technological resources of a CU. In the USA, the mortality dropped from 11.2% to 9.4% by prompt intervention as soon as the first syndro-mes appear during the observed period from 1990-1999 (16).

The patients with STEMI have the highest hospital mortality in the study by Vasiljevic Z et al.. The use of thrombotic therapy in patients with STEMI significantly reduces the mortality of the disease. It is thought that reperfusion therapy can be applied in 60-70% of the patients. During 2005, a group of patients who received thrombotic therapy had a lower mortality rate (8.2%) compared to those who did not get it (13.5%). The use of reperfusion therapy has been on the rise year by year. The percentage of patients who received thrombotic therapy in the first 6 hours after the onset of symptoms was 48,6% and in 2004 it was 53% (19). It is necessary to consider the possibility of pre-hospital thrombolysis in patients with STEMI because the best results with reperfusion therapy are achieved in the first three hours after the onset of symptoms.

In Poland, reperfusion therapy is applied to 63.3% of patients with STEMI. Among them 7.8% are treated with thrombolysis, and 54.1% are treated with primary percutaneous coronary intervention (18).

In the CU in Leskovac during the observed period the number of recovered patients was significantly higher, whereas the number of deaths was significantly lower compared to all CUs in Serbia.

The European Association of Cardiologists have set the goal that none of the new born children in the third millennium should die and contract CVD before 65 years of age. As the measure of primary prevention, they recommended the following code: 0-3-5-140-5-3-0. The meaning of this code is life without smoking, 3 km of walking a day, 5 meals of fruit and vegetables a day, blood pressure under 140 mmHg, cholesterol <5 mmol/l, LDL cholesterol <3 mmol/l, no obesity and diabetes. Using this formula, the risk factors are kept in check and a healthier lifestyle is strongly supported (1).

Conclusion

The patients with ACS in the CU in Leskovac were significantly more frequently younger when they were ill in 2006 in comparison to the average age of treated patients with ACS in all CU in Serbia. The factors of risk which were statistically more frequently represented in the CU in Leskovac were smoking, physical inactivity, stress, inheritance. Statistically significantly, STEMI was the most common form of ACS, and UAP was the rarest. The percentage of recovered patients in CU in Leskovac was statistically and significantly higher, whereas the percentage of mortality was lower compared to all CUs in Serbia.

Recognition of risk factors, their elimination and modification in healthy people is the basis of cardiovascular disease prevention. Promptly administered cardiovascular risk factors correction measures represent the best way to treat and fight this disease.

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KLINIČKE I EPIDEMIOLOŠKE KARAKTERISTIKE AKUTNOG KORONARNOG SINDROMA I ISHOD LEČENJA U JABLANIČKOM OKRUGU

Goran Cvetanović, Marija Stojiljković, Nebojša Dimitrijević, Jasmina Ranđelović

Opšta bolnica Leskovac, Leskovac, Srbija

Kontakt: Marija Stojiljković
Opšta bolnica Leskovac
Rade Končar 9, 16000 Leskovac
E-mail: marijastojiljkovic986@gmail.com

Kardiovaskularne bolesti (KVB) bile su vodeći uzrok smrtnosti u 2010. godini u Srbiji. Od tog broja, 21,4% je umrlo od ishemijske bolesti srca. Prema strukturi umiranja, od ishemijskih bolesti srca, 54,6% čini akutni koronarni sindrom (AKS), dok 45,4% čine ostale ishemijske bolesti srca.

Cilj rada bio je da prati kretanje oboljevanja od AKS, analizira faktore rizika, kliničke oblike ispoljavanja i ishod lečenih bolesnika od AKS u periodu od 2006. do 2010. godine u koronarnoj jedinici (KJ) u Leskovcu.

Broj novoobolelih u Jablaničkom okrugu bio je značajno manji od ukupnog broja novoobolelih u Srbiji. Prosečna starost bolesnika sa AKS lečenih u KJ u Leskovcu bila je uvek manja od prosečne starosti bolesnika lečenih u svim KJ u Srbiji, s tim da je u 2006. godini bila statistički značajno manja. Pušenje, pozitivna porodična anamneza (71,4%), fizička neaktivnost (61,5%) i stres (51%) bolesnika sa AKS lečenih u KJ u Leskovcu bili su značajno zastupljeni u odnosu na sve KJ na teritoriji Srbije. Najzastupljenija forma AKS u KJ u Leskovcu bio je infarkt miokarda sa ST elevacijom (STEMI) (69,7%). Ređe zastupljeni oblik AKS bio je infarkt miokarda bez ST elevacije (NSTEMI) (24,4%), dok je najređi oblik AKS bila nestabilna angina pektoris (NAP) (10,1%). U KJ u Leskovcu broj STEMI je bio statistički značajno veći, dok je broj NAP bio statistički značajno manji u odnosu na sve KJ u Srbiji. Najveći procenat bolesnika sa AKS bio je oporavljen (70,1%) kako u svim KJ u Srbiji tako i u Leskovcu (83,5%). Broj oporavljenih bolesnika u KJ u Leskovcu bio je statistički značajno veći.

Prepoznavanje faktora rizika (FR) i njihova eliminacija i modifikacija kod zdravih ljudi osnova je prevencije KVB. Pravovremena primena mera za korekciju kardio-vaskularnih faktora rizika predstavlja najbolji vid lečenja i borbe protiv ove bolesti. *Acta Medica Medianae 2017;56(1):9-16.*

Ključne reči: *AKS (akutni koronarni sindrom), STEMI (infarkt miokarda sa ST elevacijom), NSTEMI (infarkt miokarda bez ST elevacije), NAP (nestabilna angina pektoris)*