

Slučaj pogađa vlasnika: još jedan primjer probira kardiovaskularnog rizika

Risks find the owner: another example of cardiovascular risk screening

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Uvod: Dosadašnji rezultati provedenih javnozdravstvenih akcija ukazuju na visoku prisutnost nereguliranih čimbenika kardiovaskularnog (KV) rizika^{1,2}, što objašnjava kontinuirano visoku KV smrtnost u Republici Hrvatskoj³. Prikazujemo nastavak započetih istraživanja sa svrhom detekcije učinkovite kombinacije čimbenika rizika primjenjivih u probiru na povećan KV rizik izvan primarne zdravstvene zaštite.

Pacijenti i metode: Zainteresirane osobe su, nakon najave u medijima, pristupile besplatnoj, otvorenoj javnozdravstvenoj akciji iz programa promicanja kardiovaskularnog zdravlja «Čuvari srca» koja je održana povodom Dana Grada Zagreba u lipnju 2016. godine. Po uzimanju demografskih podataka, podataka o pušenju cigareta i dijabetesu, mjerili su se indeks tjelesne mase, opseg struka, vrijednosti glukoze i lipida iz kapilarne krvi te arterijskog tlaka. Osobama u dobi od 40 do 65 godina određen je KV rizik primjenom bodovnog sustava SCORE (*Systematic Coronary Risk Evaluation*). Sudionici su imali priliku izabrati kontrolu svih ili pojedinih čimbenika rizika, preuzeti edukativne materijale te savjetovati se sa zdravstvenim djelatnicima. Podatci su analizirani u skupinama ovisno o spolu. Deskriptivna statistika podataka dobivenih prebrojavanjem obavljena je uporabom apsolutnih brojeva i relativnih frekvencija, a testiranje povezanosti vršeno je uporabom χ^2 -testa. Podaci dobiveni mjerenjima analizirani su t-testom.

Rezultati: Akciji su pristupile 132 osobe (44,7 % muškaraca i 55,3% žena), od kojih je većina bila je u dobi iznad 65 godina (63,6%). Dislipidemija (74,6%), opća pretilost (60,6%), abdominalna debljina (56,1%) i arterijska hipertenzija (51,1%) bili su najzastupljeniji. Analiza prisutnih čimbenika prema spolu prikazana je u **tablici 1**. Vrijednosti ukupnog kolesterola i LDL-a bile su više u muškaraca, a HDL u žena. Trećina sudionika imala je vrijednost glukoze >6,4mmol/L. Većina dijabetičara nije imala zadovoljavajuće reguliranu glikemiju. Prema SCORE bodovnom sustavu (**tablica 2**) muškarci srednje životne dobi najčešće su bili u kategoriji visokog, a žene u kategoriji umjerenog rizika.

Introduction: The results of conducted public health actions we have had so far indicate a high presence of unregulated cardiovascular (CV) risk^{1,2} factors, which explains a continuously high CV mortality in the Republic of Croatia³. We show the continuation of the initiated research with the purpose of detecting an effective combination of risk factors applicable to screening on increased CV risk beyond primary health-care.

Patients and Methods: After being announced in the media, interested persons joined the free, open public health action included in the program of promoting cardiovascular health, "Guardians of the Heart", which was held on the occasion of the Day of the City of Zagreb in June 2016. After taking the demographic data, data on cigarette smoking and diabetes, they underwent the measurement of the body mass index, waist circumference, glucose and lipid values in the capillary blood and blood pressure. Persons aged 40-65 have been diagnosed CV risk using SCORE (*Systematic Coronary Risk Evaluation*) risk charts. Participants had the opportunity to choose to undergo an examination of all or certain risk factors, take educational materials and consult health professionals. The data was analyzed in groups, depending on gender. Descriptive statistics of data obtained by counting was performed by using absolute numbers and relative frequencies, whereas testing of the relation was done by using χ^2 -test. The data obtained by measurements was analyzed by t-test.

Results: The action was joined by 132 persons (44.7% men and 55.3% women), most of whom was aged over 65 years (63.6%). Dyslipidemia (74.6%), obesity (60.6%), central obesity (56.1%) and hypertension (51.1%) were most common. The analysis of the present factors by gender is shown in **Table 1**. The values of total cholesterol and LDL were higher in men, and HDL values were higher in women. One third of the participants had a glucose value > 6.4mmol/L. Most diabetics did not have a satisfactory regulated glycemia. According to SCORE risk charts (**Table 2**) middle age men were commonly found in high risk category, while women were found in the moderate risk category.

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Zaključak: Mjerenje opsega struka, kao brzu i jednostavnu metodu, treba uzeti u obzir pri budućim javnozdravstvenim aktivnostima. Praćenje glikemije korisno je u dijabetičara, dok se ostalima treba raditi samo ako su natašte. Osobe s umjerenim ili visokim KV rizikom trebaju se konzultirati s nadležnim obiteljskim liječnikom. Obzirom na visoku prisutnost promjenjivih čimbenika KV rizika potreban je agresivniji pristup probiru koji bi se, pored informiranja o prioritetima KV prevencije⁴, trebao fokusirati na kardiometabolički rizik.

Conclusion: The measurement of waist circumference, as a quick and simple method, should be considered in future public health activities. Monitoring of glycaemia is useful in diabetics, while others should undergo it only on an empty stomach. People having moderate to high CV risk should consult a general practitioner. Considering a high presence of variable CV factors, a more aggressive approach to screening is required, that in addition to providing information on the priorities of CV prevention⁴ should also focus on the cardiometabolic risk.

TABLE 1. Risk factors in group of patients according to gender.

	Men (N=59)	Women (N=73)	P value
Age (years)			
mean ± SD	70.56 ± 11.98	66.90 ± 11.09	0.0713
minimum	30	32	
maximum	95	87	
< 40	2	1	
40-65	14 (23.7%)	31 (42.5%)	
> 65	43 (72.9%)	41 (56.2%)	
Body mass index (kg/m²)			
mean ± SD	26.92 ± 3.09	26.28 ± 4.78	0.3763
< 25	20 (33.9%)	32 (43.8%)	0.2846
25-29.9	27 (45.8%)	29 (39.7%)	
≥ 30	12 (20.3%)	12 (16.4%)	
Waist circumference (cm)			
mean ± SD	101.36 ± 9.86	92.73 ± 12.52	< 0.0001
men < 94 & women < 80	11 (18.6%)	12 (16.4%)	0.8191
men > 102 & women > 88	28 (47.5%)	46 (63.0%)	0.0807
Lipids (mean value ± SD (mmol/L))			
total cholesterol	5.36 ± 0.97	6.01 ± 0.93	0.0001
LDL cholesterol	2.65 ± 0.91	3.02 ± 1.08	0.0493
HDL cholesterol	1.70 ± 0.79	1.96 ± 0.59	0.0318
triglycerides	2.15 ± 1.23	2.03 ± 0.95	0.5519
Capillary Blood Glucose			
mean value ± SD (mmol/L)	7.18 ± 2.78	6.39 ± 2.06	0.0641
> 6.4 mmol/L	20/59 (33.9%)	24/73 (32.9%)	1.0000
> 11.1 mmol/L in diabetic patients	4/8	2/3	
Known diabetes	8/59 (13.6%)	3/72 (4.2%)	0.0642
Arterial hypertension	35/59 (59.3%)	32/72 (44.4%)	0.1142
Heart rate ≥ 80 beats per minute	22/59 (37.3%)	39/72 (54.2%)	0.0780
Total cholesterol > 5.0 mmol/L	39/58 (67.2%)	58/72 (80.6%)	0.1054
Triglycerides > 1.7 mmol/l	32/58 (55.2%)	44/72 (61.1%)	0.5916
Active smokers	8/58 (13.8%)	8/73 (11.0%)	0.5906

TABLE 2. 10-years cardiovascular risk estimation in subjects aged 40 to 65 according to Systematic Coronary Risk Evaluation (SCORE) risk charts.

SCORE risk categories	Men	Women
Low-risk (< 1%)	0	3/31 (9.7%)
Moderate risk (≥ 1% and <5%)	5/14 (35.7%)	25/31 (80.6%)
High-risk (≥ 5% and <10%)	8/14 (57.1%)	3/31 (9.7%)
Very high-risk (≥ 10%)	1/14 (7.1%)	0

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