Utjecaj metaboličkog sindroma i spola na težinu infarkta miokarda

Influence of metabolic syndrome and gender on myocardial infarction size

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CILJ ISTRAŽIVANJA: U pacijenata s akutnim infarktom miokarda (AIM) odrediti težinu infarkta (metodom vršnih vrijednosti CPK i MB-CPK) u skupinama pacijenata sa i bez metaboličkog sindroma (MetS). Nadalje, cilj je bio u pacijenata s Aim-om odrediti težinu infarkta u muškaraca i žena sa i bez MetS-a.

ISPITANICI I METODE: U istraživanje je uključeno 183 pacijenta s AIM-om hospitaliziranih u Koronarnoj jedinici KB Dubrava tijekom 2006. i 2007. godine. Pacijenti s MetS-om prema definiciji SZO¹ (n=117) imali su dijabetes melitus ili intoleranciju glukoze te najmanje dva od sljedećih kriterija: hipertenziju, hipertrigliceridemiju/nizak HDL, androidnu pretilost/povišen BMI ≥ 30 , ili mikroalbuminuriju. Kontrola skupina (n=66) nije zadovoljavala kriterije za MetS.

REZULTATI: Od 183 pacijenta skupina s MetS-om imala je značajno opsežniji infarkt izraženim u vršnim vrijednostima CK-MB [141 ± 117 vs. 95 ± 78 IU/mL ($t=3.208$, $df=176$, $p=0.002$)] i vršnim CK vrijednostima [1484 ± 1354 vs. 981 ± 890 IU/mL ($t=3.022$, $df=177$, $p=0.003$)] (**tablica 1**), što je naročito bilo izraženo u žena s MetS (**slika 1**). Kod pacijenata bez MetS-a infarkt je bio opsežniji u muškaraca nego u žena, u skupini s MetS infarkt je bio opsežniji u žena. Skupina žena s MetS-om je općenito podskupina s najopsežnijim infarktom miokarda (**slika 1**, **tablica 1**).

AIM: To determine myocardial infarction (MI) size in patients with acute myocardial infarction (AMI) expressed in "peak-CPK" and "peak-MB-CPK" values. We also analyzed MI size in male and female patients with and without MetS.

PATIENTS AND METHODS: 183 patients with AMI hospitalized in Coronary Care Unit of Dubrava University Hospital, Zagreb during 2006 and 2007 were analyzed. Those with MetS according to WHO definition¹ (n=117) included patients with diabetes/glucose intolerance and at least two of the following criteria: hypertension, hypertriglyceridemia/low HDL cholesterol, android obesity/Body mass index (BMI) ≥ 30 , microalbuminuria. Control group (n=66) did not meet criteria for MetS.

RESULTS: Among 183 patients with MI the MetS group had statistically significant larger MI size as determined by peak CK-MB [141 ± 117 vs. 95 ± 78 IU/mL ($t=3.208$, $df=176$, $p=0.002$)] and peak CK levels [1484 ± 1354 vs. 981 ± 890 IU/mL ($t=3.022$, $df=177$, $p=0.003$)] (**Table 1**), which was particularly emphasized in females having MetS (**Figure 1**). In patients without MetS MI size was significantly larger in males than in females, in MetS MI size was significantly larger in female group, and MetS-female patients was a group with largest MI size at all (**Figure 1**, **Table 1**).

FIGURE 1.

Myocardial infarction size (expressed in mean peak MB-CK in IU/mL) according to gender and metabolic syndrome.

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TABLE 1. Myocardial infarction size expressed as mean peak MB-CK according to metabolic syndrome, age and gender.

MetS Gender	n	M	SD	Mean Age	SD	
NO	Male	43	110.77	68.84	62.19	13.27
	Femae	23	64.26	46.93	66.17	11.78
YES	Male	79	130.38	109.47	64.11	9.74
	Female	38	162.84	128.86	69.63	9.14
Total		183	124.20	106.50	65-07	11.04

M = mean peak MB-CK in IU/mL; SD = standard deviation.

ZAKLJUČAK: Prisutnost MetS-a u pacijenata s AIM-om predisponira pacijente k opsežnijem infarktu, i to više na račun ženskih pacijenata. Prepoznavajući žene s MetS-om kao grupu s najvećim rizikom za opsežniji infarkt miokarda ukazuje na potrebnu posebnu pozornost ovoj grupi pacijenata.

CONCLUSIONS: Occurrence of MetS in AMI patients predisposes to larger MI size, more on the account of female patients having MetS. Recognizing the female group with MetS as of higher risk for large MI leads us to take special attention to this patients.

LITERATURE

1. World Health Organization. Definition, diagnosis, and classification of diabetes mellitus and its complications: report of WHO consultation. Part 1: Diagnosis and classification of diabetes mellitus. Geneva: WHO, 1999.