

EFFECT OF CHANGES OF ADIPOCYTOKINES ON THE HEART REMODELING PROCESS AND PROGNOSIS IN PATIENTS WITH METABOLIC SYNDROME IN COMBINATION WITH VARIOUS CARDIOVASCULAR DISORDERS

.. Stilidi

SUMMARY

The paper studies the impact of changes in serum levels of adipocytokines on myocardial remodeling in patients with metabolic syndrome. The questions of the possibility of predicting outcomes of cardiovascular disease, depending on the serum concentration of adiponectin and resistin were discussed.

[19, 20].

[16].

[3, 21].

[23]

[24].

[10]

[26].

[26].

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[11, 18].

2006 [6].

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3

53

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- 18 ; 35 , 50

48,43±0,84

() - 24

26 , 60,96±1,41 ;

47

() - 34

13 , 59,30±1,18

[8].

4,03±0,20 / .

5,14±0,36 / .

4,67±0,40 / .

- 6 (4%),

10,8±0,92 / .

15,6±1,77 /

- 29 (19%),

20,7±2,93 / .

- 87

22 (58%),

(19%).

- 28

< 50%.

p < 0,05.

Human Resistin ELISA; Cat. No.: RD191016100; Lot No.: RD 1745 Biovondor ().

Factor Analysis).

(Statistica,

M ± m.

Human Adiponectin ELISA; Cat. No.: RD195023100; Lot No.: RD 1792 Biovondor ().

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() [1, 12].

8.00 9.00.

STATISTICA 6

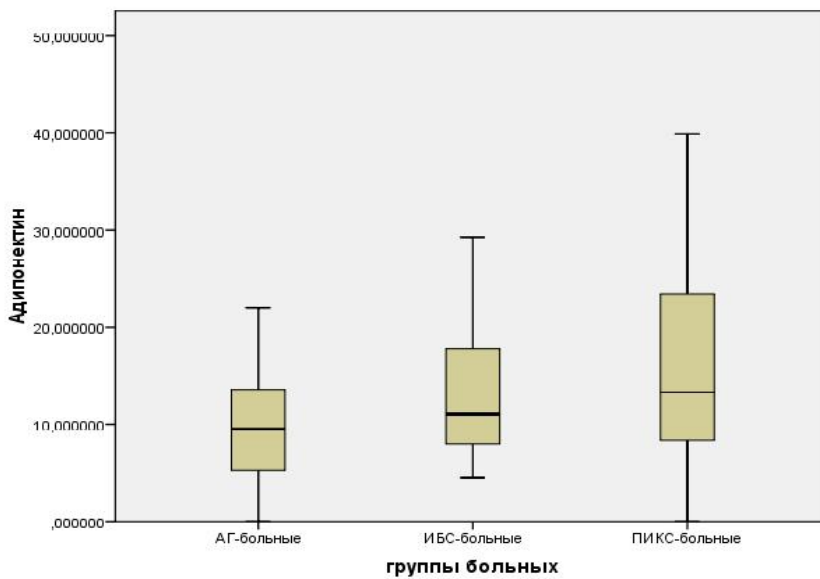
(StatSoft, Inc., www.statsoft.com).

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(r).

(p = 0,027).



.1.

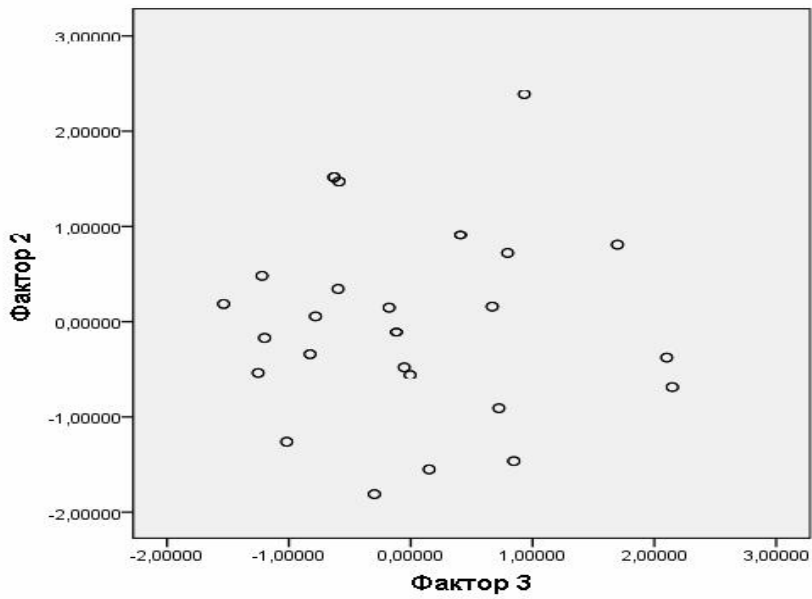
p = 0,13,

1-
;2-
;3-

2.

2, 3,

2,



.2. (: Varimax.) :

1 3 , 1 2, (r = -0,51; p = 0,0005).

(r = 0,49; p = 0,001) (r = 0,32; p = 0,03).

(r = 0,83; p = 0,01), (r = 0,87;

p = 0,03). (r = 0,72;

p = 0,0045).

(r = -0,81; p = 0,024).

(r = 0,65; p = 0,012).

(r = 0,72; p = 0,003).

(r = -0,50; p = 0,0008). (r = 0,82; p = 0,0003).

2012,	15,	2,	.3 (58)	-	-	-	-	-	-
			(r=0,41; p=0,04).	-	2-	-	-	-	-
			(r=0,52; p=0,034),	-	,	-	-	-	-
			(r=-0,43; p=0,011).	-	,	7 (15%)	-	-	-
				-	6 (13%)	4	.2	-	-
				-				, 1	-
			(r=-0,72; p=0,007)	(r=0,92;	-	-	-	-	-
			p = 0,00001).	-	-	-	-	-	-
			(r=0,67; p=0,01).	-	-	-	-	-	-
			(r=-0,60; p=0,03).	-	,	-	-	-	-
				(r=-	< 5,1	/	-	-	-
			0,70; p=0,03),	(r=0,68;	93%,	70%	95%,	78%,	-
			p = 0,022).	-	-	-	-	-	-
			(r=-0,94; p=0,00009).	-	-	-	-	-	-
				(r=-0,48; p=0,02).	-	-	85%	< 9,2	/
				(r=-0,69;	60%,	53%.	:	23%,	-
			p = 0,03).	-	-	-	-	-	-
				-	-	-	-	-	-
				-	-	-	-	< 9,0	-
				-	/	-	-	11%,	-
					50%,	94%,	65%.	-	-
			(r=-0,550; p=0,0001).		< 9,0	/	:	-	-
					11%,	81%,	25%,	<	-
					62%.	9,0	/	-	-
			(r=-0,410; p=0,005).		80%	78%.	50%,	94%,	-
					-	-	-	-	-
					4,0	/	-	-	-
			(r=0,303; p=0,020).		79%,	76%	59%.	55%,	-
					-	-	-	-	-
			(r=0,272; p=0,05).		-	-	-	-	-
			18	3 (6%)	-	-	-	-	-
			1-	1.	-	-	-	-	-
			3 (6%)		-	-	-	-	-
			10	(19%).	-	-	-	-	-
			4 (8%)		-	-	-	-	-
			4 (8%)		-	-	-	-	-

2. Adiponectin and cardiovascular disease: response to therapeutic interventions / S.H. Han, M.J. Quon, J.A. Kim et al. // *J. Am. Coll. Cardiol.* – 2007. – Vol. 49. – P. 531-538.

3. Adiponectin and its correlates of cardiovascular risk in young adults: the Bogalusa Heart Study / D.A. Patel, S.R. Srinivasan, J.H. Xu et al. // *Metabolism.* – 2006. – Vol. 55. – P. 1551-1557.

4. Adiponectin replenishment ameliorates obesity-related hypertension / K. Ohashi, S. Kihara, N. Ouchi et al. // *Hypertension.* – 2006. – Vol. 47. – P. 1108-1116.

5. Age-dependent changes in metabolism, contractile function, and ischemic sensitivity in hearts from db/db mice / E. Aasum, A.D. Hafstad, D.L. Severson et al. // *Diabetes.* – 2003. – Vol. 52. – P. 434-441.

6. Alberti K.G. Metabolic syndrome – a new worldwide definition. A consensus statement from the International Diabetes Federation / K.G. Alberti, P. Zimmet, J. Shaw // *Diabet. Med.* – 2006. – Vol. 23. – P. 469-480.

7. Circulating adiponectin concentrations in patients with congestive heart failure / J. George, S. Patal, D. Wexler et al. // *Heart.* – 2006. – Vol. 92. – P. 1420-1424.

8. DeSimone G. Link of nonhemodynamic factors to hemodynamic determinants of left ventricular hypertrophy / G. DeSimone, F. Pasanisi, F. Contaldo // *Hypertension.* – 2001. – Vol. 38. – P. 13-18.

9. Effect of obesity and insulin resistance on myocardial substrate metabolism and efficiency in young women / L.R. Peterson, P. Herrero, K.B. Schechtman, et al. // *Circulation.* – 2004. – Vol. 109. – P. 2191-2196.

10. Endothelial dysfunction in vivo is related to monocyte resistin mRNA expression / G. Lupattelli, S. Marchesi, T. Ronti, et al. // *J. Clin. Pharm. Ther.* – 2007. –

Vol.32. – P. 373-379.

11. Follow-up report on the diagnosis of diabetes mellitus / S. Genuth, K.G. Alberti, P. Bennett et al. // *Diabetes Care.* – 2003. – Vol. 26. – P. 3160-3167.

12. Goldman L. Quantitative aspects of clinical reasoning - In: *Harrison's Principles of Internal Medicine*; 13th Ed. – 1994. – P. 43-48.

13. Iacobellis G. Relationship of epicardial adipose tissue with atrial dimensions and diastolic function in morbidly obese subjects / G. Iacobellis, F. Leonetti, N. Singh // *Int. J. Cardiol.* – 2007. – Vol. 115. – P. 272-273.

14. Influence of epicardial adipose tissue and adipocytokine levels on cardiac abnormalities in visceral obesity / A.E. Malavazos, F. Ermetici, C. Coman et al. // *Int. J. Cardiol.* – 2007. – Vol. 121. – P. 132-134.

15. Kershaw E.E. Adipose tissue as an endocrine organ / E.E. Kershaw, J.S. Flier // *J. Clin. Endocrinol. Metab.* – 2004. – Vol. 89. – P. 2548-2556.

16. Left ventricular mass and +276 G/G single nucleotide polymorphism of the adiponectin gene in uncomplicated obesity / G. Iacobellis, A. Petrone, F. Leonetti et al. // *Obesity.* – 2006. – Vol. 14. – P. 368-372.

17. Mosteller R.D. Simplified Calculation of Body Surface Area // *N. Engl. J. Med.* – 1987. – Vol. 22. – P. 1098.

18. Myocardial infarction redefined – a consensus document of The Joint European Society of Cardiology/ American College of Cardiology Committee for the redefinition of myocardial infarction / J.S. Alpert, K. Thygesen, E. Antman et al. // *J. Am. Coll. Cardiol.* – 2000. – Vol. 36. – P. 959-969.

19. Ouchi N. Cardioprotection by adiponectin. / N. Ouchi, R. Shibata, K. Walsh // *Trends. Cardiovasc. Med.* – 2006. – Vol. 16. – P. 141-146.

20. Ouchi N. Targeting adiponectin for cardioprotection / N. Ouchi, R. Shibata, K. Walsh // *Expert. Opin. Ther. Targets.* – 2006. – Vol. 10. – P. 573-581.

21. Pischon T. Adiponectin: a promising marker for cardiovascular disease / T. Pischon, E.B. Rimm // *Clin. Chem.* – 2006. – Vol. 52. – P. 797-799.

22. Plasma adiponectin, body mass index, and mortality in patients with chronic heart failure / C. Kistorp, J. Faber, S. Galatius et al. // *Circulation.* – 2005. – Vol. 112. – P. 1756-1762.

23. Rothwell S.E. Resistin worsens cardiac ischaemia-reperfusion injury / S.E. Rothwell, A.M. Richards, C.J. Pemberton // *Biochem. Biophys. Res. Commun.* – 2006. – Vol. 349. – P. 400-407.

24. Serum resistin is associated with high risk in patients with congestive heart failure - a novel link between metabolic signals and heart failure / Y. Takeishi, T. Niizeki, T. Arimoto et al. // *Circ. J.* – 2007. – Vol. 71. – P. 460-464.

25. The good fat hormone: adiponectin and cardiovascular disease / D. Do, J. Alvarez, E. Chiquette et al. // *Curr. Atheroscler. Rep.* – 2006. – Vol. 8. – P. 94-99.

26. The potential role of resistin in atherogenesis / M.S. Burnett, C.W. Lee, T.D. Kinnaird, et al. // *Atherosclerosis.* – 2005. – Vol. 182. – P. 241-248.