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ABSTRACT BOOK

NAFLD SUMMIT 2019

26 - 28 SEPTEMBER 2019
SEVILLA, SPAIN

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ePOSTER ABSTRACT PRESENTATIONS

P01-12 The role endothelial lipase in patients with non-alcoholic fatty liver disease and hypertension depending on the performance of the lipid profile

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Background and aims: Non-alcoholic fatty liver disease (NAFLD) and hypertension are among the most common diseases in the world. One of the negative factors contributing to the formation of cardiovascular risk in patients with NAFLD affected with hypertension is the low level of HDL cholesterol. Since endothelial lipase (EL) is directly related to the metabolism of HDL, we analyzed EL in accordance with the levels of HDL.
Method: 50 patients with NAFLD on the backdrop of hypertension and overweight were examined. Group distribution was performed according to HDL values: group 1 low values (<1.04 mmol/l), n = 10; group 2-moderately reduced (1.04-1.54 mmol/l), n = 27; group 3-protective values (>1.55 mmol/l), n = 13. The patients were comparable by gender and age. The average age was [53 ± 7.5]. The severity of steatosis was determined by the NAFLD index liver fat score. The concentration of EL serum was determined by ELISA using kits of reagents "Aviscera Bioscience INC" (USA).
Results: Analysis of the lipid profile shows a significant difference between all groups in terms of HDL. The concentration of total cholesterol was not significantly different in the groups. At the same time, significantly lower levels of triglycerides and LDL in individuals with high levels of HDL. The results are presented in table 1. Regression analysis demonstrates a significant positive (p = 0, 04) correlation between EL level with total cholesterol and the negative with LDL level.
Conclusion: It turns out that in patients with more pronounced non-alcoholic liver steatosis there is a proatherogenic type dislipidemia with high levels of triglycerides and low levels of protective HDL. The concentration of EL did not show a direct relationship with the level of HDL. However EL was found to depend on LDL and total cholesterol levels, which can determine its complementary role in LDL metabolism in conditions of liver steatosis.
Figure:

Parameters	Group 1 HDL <1, 04 mmol/l n = 10		Group 2 HDL 1, 04-1, 54 mmol/l n = 27		Group 3 HDL >1, 55 mmol/l n = 13		p value <0, 05
	Mean	SD	Mean	SD	Mean	SD	
Total cholesterol, mmol/l	5, 58	1, 02	5, 65	1, 34	5, 87	1, 30	
Triglycerides, mmol/l	2, 24	1, 48	1, 64	0, 80	1, 29	0, 34	13
HDL, mmol/l	0, 91	0, 10	1, 28	0, 16	1, 78	0, 19	12 23 13
LDL, mmol/l	3, 67	0, 75	3, 57	1, 32	3, 41	1, 23	
VLDL, mmol/l	1, 01	0, 67	0, 80	0, 39	0, 58	0, 15	13
Endothelial lipase, ng/ml	11, 39	2, 74	11, 99	4, 49	12, 33	4, 19	13
NAFLD liver fat score	3, 41	4, 29	2, 96	3, 19	0, 43	1, 47	13 23

Tab. 1. Lipid profile and NAFLD liver far score depending on HDL levels.