



Selenium metabolism and systemic inflammation in hypertensive patients with nonalcoholic fatty liver disease

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INTRODUCTION

Nonalcoholic fatty liver disease (NAFLD) and hypertension (HNT) are major risk factors of development of diabetes and its complications. Selenium (SE) takes part in antioxidant protection, which also determines insulinoreistance.

AIM

To investigate levels of IL-8 and Selenium and their correlations in hypertensive NAFLD patients.

MATERIALS AND METHODS

Selenium and IL-8 were estimated by ELISA. Body mass index (BMI) assessed as ratio of body weight (kg) to height (m²). Statistical calculation were made in IBM SPSS 25.0.

RESULTS

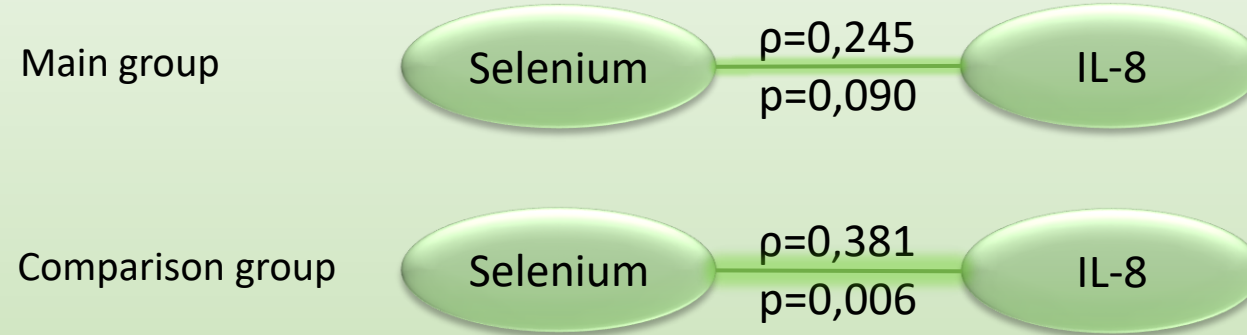
	Main group (n=49)	Comparison group (n=51)	Control group (n=20)
Age, years	51.0 [45.0; 56.0]	52.0 [47.0; 54.0]	51.0 [45.0; 55.5]
BMI, kg/m ²	27.8 [26.6; 28.5] *	27.3 [24.2; 28.3] *	24.3 [21.9; 26.0]
IL-8, pg/ml	29.4 [25.6; 34.9] *, **	22.5 [19.1; 25.8] *	7.4 [6.7; 8.9]
Selenium, mkg/l	43.5 [39.9; 49.1] *, **	67.2 [61.5; 77.4] *	108.0 [96.9; 118.8]

* – differences significant compared to controls (p<0.001)

** – differences significant between main and comparison group (p<0.001)

Data presented as median and interquartile range

CORRELATIONS



CONCLUSIONS

- NAFLD is associated with decreased SE and increased IL-8 levels.
- Comorbid hypertension leads to statistically significant aggravation of those changes, which can be considered as prognostically unfavorable factor of development of early insulinoreistance in patients with NAFLD and HTN comorbidity.

