

## Spożycie alkoholu etylowego a profil lipidowy osocza młodych szczurów linii *Warsaw High-Preferring*

Ethanol intake and plasma lipid profile of young Warsaw High-Preferring rats

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**Abstract – Introduction.** Adolescence contributes to a higher risk of psychoactive substance use. Alcoholic beverages are comparatively cheap and easily accessible stimulants currently in common use by young people. An excessive and chronic alcohol intake in young people increases the risk of development of alcohol addiction and harmful health effects, such as cardiovascular disease, in adulthood. The aim of this study was to evaluate the influence of 10% ethanol solution intake on plasma lipid profile parameters in young male Warsaw High-Preferring (WHP) rats.

**Material and methods.** The study was carried out in 37 young male WHP rats. The animals were divided into 3 experimental groups (E2, E4, E6) and 3 control groups (C2, C4, C6). Thirty day old male WHP rats from experimental groups were treated with 10% ethanol solution over 2, 4 and 6 weeks respectively. Moreover, animals from groups E2, E4, E6 were also presented tap water in the second bottle. Animals from control groups received water during the same periods of experiment. All animals had free access to standard lab chow (Labofeed H). At the end of experiment (after 2, 4 and 6 weeks) the rats were anaesthetised and the blood was collected for assaying of plasma:

- 1) total cholesterol (TC)
- 2) high-density lipoprotein (HDL-C)
- 3) triglycerides (TG)
- 4) low-density lipoprotein (LDL-C).

**Results.** Statistical analysis revealed significantly higher plasma TC and HDL-C concentrations in E4 group compared with the C4 group ( $86,8 \pm 7,4$  vs  $71,9 \pm 4,3$  mg/dl and  $42,8 \pm 2,8$  vs  $32,5 \pm 2,5$  mg/dl respectively). There were no significant differences between rats receiving 10% ethanol solution and control groups in TG and LDL-C concentrations.

**Key words:** ethanol, cholesterol, HDL, LDL, triglycerides, WHP rats

**Streszczenie – Wstęp.** Okres dorastania wiąże się ze zwiększonym ryzykiem sięgania po substancje psychoaktywne. Napoje alkoholowe należą do relatywnie tanich i łatwo dostępnych używek, które są obecnie powszechnie stosowane przez młode osoby. Nadmierne i długotrwałe spożywanie alkoholu

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