

Review Papers

THE INFLUENCE OF STRESS ON ETHANOL CONSUMPTION

Wanda Dyr

Zakład Farmakologii i Fizjologii Układu Nerwowego
Instytutu Psychiatrii i Neurologii w Warszawie

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ABSTRACT – A number of hypothesis have suggested that ethanol is consumed for its anxiety reduction properties. Exposure to stress may enhance ethanol intake and ethanol can decrease behavioral effects of stress. The mechanisms underlying the relationship between stress and alcohol consumption are not well understood. Ethanol and stress affected one of biological systems the hypothalamic-pituitary-adrenal (HPA-axis. The levels of ACTH and cortisol were investigated in persons at high (HR) and low (LR) risk of alcoholism. The basal level of ACTH, but not cortisol, was lower in HR subjects in comparison with the LR person. Stress-induced increase in plasma ACTH concentration was lower in HR than LR.

In the HAB (high anxiety-related behavior), increased inborn anxiety and voluntary ethanol consumption were related to some degree. The innate anxiety of the other strain (Harlan-Fischer, Wistar-BgVV and Wistar-Harlan) of rats revealed that Harlan-Fisher showing-most anxiety displayed the lowest ethanol intake. But in genetically selected rat strains for high and low ethanol consumption there is relationship between innate anxiety and alcohol-consuming behavior.