The etiology of chronic liver disease and cirrhosis in Hungarian men.

Beáta Éva Petrovski

Department of Preventive Medicine, Public Health Research Group of the Hungarian Academy of Sciences, Faculty of Public Health, Medical and Health Science Centre, University of Debrecen

Supervisor: Zoltán Vokó, MD, Ph.D.

Doctoral School of Health Sciences

Doctoral program of Preventive Medicine and Public Health

Summary

Mortality of chronic liver disease (CLD) and cirrhosis in the Hungarian population has been high in international comparison. To explore the determinants of chronic liver diseases in the Hungarian population, we performed a case-reference, as well as an embedded cross-sectional study in general practices in 1079 men aged 45-64 years. Our goal was to examine the relationship between CLD and cirrhosis, and lifestyle factors (alcohol consumption, smoking, physical activity, nutrition), viral hepatitis (B, C, E), as well as socio-economic status (educational level, marital status, financial status). An additional research question was how much lifestyle factors explain the relationship between the socio-economic factors and liver disease. In addition, the relationship of serum selenium level with liver damage, and with age, lifestyle and socio-economic factors was also studied.

Simple and multiple logistic as well as linear regression methods were used to study the relationship between disease and risk factors; the comparison of laboratory parameters between groups was performed by the Kruskal-Wallis ANOVA method.

The risk of CLD and cirrhosis was doubled by heavy drinking, regular smoking, bad financial situation and if someone lived alone. This risk was reduced by high school education. The relationship between liver disease and socio-economic factors (education, marital status) remained after correction for lifestyle factors. Bad financial situation was not related to liver disease after correction for lifestyle factors. The selenium was significantly associated with liver biochemical markers such as GOT, GPT, GOT / GPT, albumin, bilirubin levels, and the change could be detected at an early stage of liver disease, before symptoms appeared. In persons without signs and symptoms of liver disease elderly persons, heavy drinkers and regular smokers had significantly lower concentration of selenium, while higher level of education and consumption of vegetable cooking oil increased it.

Based on the results, reduction of the alcohol consumption and smoking should have a priority among actions aiming to reduce the high premature mortality from CLD and cirrhosis, while identification of other important risk factors should help in developing other preventive interventions.

Keywords: chronic liver disease, cirrhosis, Hungary, etiology

Kulcsszavak: krónikus májbetegség, májzsugor, etiológia, Magyarország