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15

CLINICAL AND PATHOGENETICAL ROLE OF SELENIUM IN ACUTE AND PRESISTANT VIRAL HEPATIS B

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The aim of the present work is study of pathogenetical role of selenium in the viral hepatitis B (VHB) pathological process and estimation of sodium selenite role in treatment of acute (AVHB) and persistent (PVHB) viral hepatitis B. There were studied 158 patients with various forms and heaviness of VHB. Diagnosis has been based on the clinical observation and approved by detection of the specific markers of HB viral infection: HbsAg, and anti-HBcIgM in the blood plasma and by absence of anti-HAVIgM and anti-HCV. For all patients, concentration of selenium has been determined in hair, blood cells and blood plasma using neutron activation analysis. Additionally was determined activity of ferments in a liver glutathione system: glutathionreductase, glutathionperoxidase and glutathiontransferase using colorimetry. In groups of AVHB and PVHB, concentration of selenium in blood plasma and hair decreases proportionally to heaviness of a disease. The lowest concentrations were detected in heavy forms of a disease in height of illness. Statistically significant correlations were found between selenium concentration and heaviness of a disease as well as activity of antioxidative ferment of glutathionperoxidase. Application of the sodium selenite in treatment of patients with AVHB and PVHB in comparison to the control group leads to more rapid decrease of the disease indications and duration of intoxication manifestations, size of the liver, duration of the patients treatment in a hospital and reduction of biochemical indications. On the base of the results obtained we recommend application of preparations containing selenium because of their antioxidative impact (enhancing of the selenium-containing antioxidative ferment of glutathion peroxidase).

16

BLOOD ANTIOXIDANT PARAMETERS AND CARDIOVASCULAR RISK FACTORS IN SUBJECTS FROM THE CITY OF PONTA DELGADA (AZORES' ARCHIPELAGO, PORTUGAL)

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The purpose of this work was to evaluate serum selenium, copper and zinc concentrations, as well as the whole blood glutathione peroxidase and erythrocyte superoxide dismutase activities in subjects from the city of Ponta Delgada (S. Miguel Island, Azores' Archipelago). The study of their relationship with generally accepted cardiovascular risk factors was also an objective. Blood samples were collected from January to July 2000. Donors were voluntary men and women, aged 20 to 60 years, and they had no recognizable chronic diseases, as stated by their clinical reports. Medicine intake, blood pressure and some life habits such as alcohol, drug and cigarette consumption were also registered. Data are analysed by sex, age and serum lipid profile, namely in younger or middle aged and in normo- or hyperlipidemic men and women. A multivariate statistical analysis taking into account all the parameters considered will be also presented. (This work was supported by PRAXIS XXI.)