## Antioxidant status and glutathione metabolism in peripheral blood mononuclear cells from patients with chronic hepatitis C

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### Abstract of:

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Background/Aims: Oxidative stress could play a role in the pathogenesis of hepatitis C virus infection. We investigated the oxidant/antioxidant status in peripheral blood mononuclear cells from patients with chronic hepatitis C and controls.

Methods/Results: Lipid peroxidation products and superoxide dismutase activity in peripheral blood mononuclear cells were higher in chronic hepatitis C patients than in healthy subjects while glutathione S-transferase activity was reduced in patients as compared to controls. Catalase, glutathione peroxidase and glutathione reductase were similar in chronic hepatitis C and normal individuals. No statistically significant differences were found between patients and controls with regard to glutathione levels in peripheral blood mononuclear cells, but 35% of patients with chronic hepatitis C showed values of glutathione and oxidized glutathione wich were below and above, respectively, the limits of normal controls. Finally, the glutathione synthetic capacity of the cytosol of peripheral blood mononuclear cells was significantly higher in patients than in controls, indicating increased glutathione turnover in lymphocytes from patients with chronic hepatitis C.

Conclusions: Oxidative stress is observed in peripheral blood mononuclear cells from chronic hepatitis C patients. This process might alter lymphocyte function and facilitate the chronicity of the infection.

Key Words: Antioxidant enzymes, Glutathione, Hepatitis C virus, Malondialdehyde, Oxidative stress.

# Perceptions about body weight and reduction in Spain

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### Abstract of:

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*Objective:* To assess the more prevalent beliefs about body weight and the factors involved in weight changes in the Spanish adult population.

Design: A national survey was carried out according to an established protocol on Spanish subjects selected by a multistage procedure following a random route model, which was quotacontrolled for several sociodemographic variables. This study was undertaken by the Spanish arm of a pan-European survey and was performed with a validated questionnaire. It contained questions to evaluate some aspects concerning the relationship between obesity, physical activity and health. We also estimated the proportion of self-reported overweight and obesity.

Setting: Spain.

Subjects: The sample included 1,000 subjects aged 15 years or older.

Results: Eleven per cent of the sample were obese (body mass index, BMI > 30 kg/m-2) and an additional 32% were

overweight (BMI > 25 and < 30 kg/m-2). Obesity prevalence was higher among older individuals, those with lower education and socioeconomic levels, and among housewives and retired or unemployed people. Most Spanish people believed that fat intake (51%) and the amount of food consumption (44%) were the major factors involved in weight gain, while physical activity was less mentioned (12%). The method most frequently used to lose weight was diet (9%). Individuals from central and southern regions payed more attention to genetics (20-27%) and physical activity (12-20%) as determinants of weight gain than people living in the north or northwest regions (15-17% and 8-9%, respectively). Normal weight people participated more often in some physical activity during their leisure time.

Conclusions: The Spanish population is not familiar with factors influencing weight gain. Health promotion strategies should emphasize the role of physical activity, especially among older individuals, retired or unemployed subjects, those from lower educational or socioeconomic levels and among people living in the north or northwest of Spain.