

Physical inactivity, sedentary lifestyle and obesity in the European Union**M. A. Martínez González, J. A. Martínez, F. B Hu, M. J. Gibney and J. Kearney**

Abstract of:

Int J Obes Metab Disord 1999 Nov; 23(11): 1192-201

Background: Diverging trends of decreasing energy intake and increasing prevalence of obesity suggest that physical inactivity and sedentary lifestyle may be one of the key determinants of the growing rates of overweight/obesity. In Western populations, information about the impact of physical inactivity and sedentary lifestyles on the prevalence of obesity among the general adult population in the European Union, is sparse.

Objectives: To estimate the association of leisure-time sedentary and non-sedentary activities with body mass index (BMI, kg/m²) and with the prevalence obesity (BMI>30 kg/m²) in a sample of the 15 member states of the European Union.

Methods: Professional interviewers administered standardized in-home questionnaires to 15,239 men and women aged 15 years upwards, selected by a multi-stage stratified cluster sampling with quotas applied to ensure national and European representativeness. Energy expenditure during leisure time was calculated based on data on frequency of and amount of time participating in various physical activities, assigning metabolic equivalents (METs) to each activity. Sedentary lifestyle was assessed by

means of self-reported hours spent sitting down during leisure time. Multiple linear regression models with BMI as the dependent variable, and logistic regression models with obesity (BMI>30 kg/m²) as the outcome, were fitted.

Results: Independent associations of leisure-time physical activity (inverse) and amount of time spent sitting down (direct) with BMI were found.

The adjusted prevalence odds ratio (OR) for obesity was 0.52 [95% confidence interval (CI): 0.43-0.64, P<0.001] for the upper quintile of physical activity (>30 METs) compared with the most physically inactive quintile (<1.75 METs). A positive independent association was also evident for the time spent sitting down, with an adjusted OR=1.61(95% CI: 1.33-1.95, P<0.001) for those who spent more than 35 h of their leisure time sitting down compared with those who spent less than 15 h.

Conclusions: Obesity and higher body weight are strongly associated with a sedentary lifestyle and lack of physical activity in the adult population of the European Union. These results, however, need to be interpreted with caution due to the cross-sectional design. Nonetheless, they are consistent with the view that a reduction in energy expenditure during leisure time may be the main determinant of the current epidemic of obesity.

Intratumoral injection of bone-marrow derived dendritic cells engineered to produce interleukin-12 induces complete regression of established murine transplantable colon adenocarcinomas**I. Melero, M. Duarte, J. Ruiz, B. Sangro, J.C. Galofré, G. Mazzolini, M. Bustos, C. Qian and J. Prieto***Departamento de Medicina Interna, Facultad de Medicina, Universidad de Navarra, Pamplona, Spain.*

Abstract of:

Gene therapy (1999); 6, 1779-1784

Simulation of the antitumor immune response by dendritic cells (DC) is critically dependent on their tightly regulated ability to produce interleukin-12 (IL-12). To enhance this effect artificially, bone marrow (BM)-derived DC were genetically engineered to produce high levels of functional IL-12 by ex vivo infection with a recombinant defective adenovirus /AdCMVIL-12). DC-expressing IL-12 injected into the malignant tissue eradicated 50-100% well established malignant nodules derived from the injection of two murine colon adenocarcinoma cell lines. Successful therapy was dependent on IL-12 transfection and was mediated only by syngeneic, but not allogeneic BM-derived DC, indicating that

compatible antigen-presenting molecules were required. The antitumor effect was inhibited by in vivo depletion of CD8 T cells and completely abrogated by simultaneous depletion with anti-CD4 and anti-CD8 mAbs. Mice which had undergone tumor regression remained immune to a rechallenge with tumor cells, showing the achievement of long-lasting systemic immunity that also was able to reject simultaneously induced concomitant untreated tumors. Tumor regression was associated with a detectable CTL, response directed against tumor-specific antigens probably captured by DC artificially released inside tumor nodules. Our results open the possibility of similarly treating the corresponding human malignancies.

Key Words: Dendritic cell, interleukin-12, colon cancer, adenovirus, CTLs

Anaphylaxis should be considered to be a potencial cause of stuporous state**E. Noé, L. Vila, J. Iriarte, E. Martínez-Vila***Department of Neurology and Department of Allergology and Clinical Immunology, Clínica Universitaria of Navarra, Faculty of Medicine, Pamplona, Spain*

Abstract of:

Invest Allergol Clin Immunol, September-October 1999; Vol. 9(5): 335-336

Anaphylaxis is not considered to cause stupor. We studied the

case of a 69-year-old woman who lost consciousness after eating seafood. On her admittance to hospital she was in a state of stupor and elevated serum tryptase levels led us to the diagnosis of anaphylaxis.

Key words: Tryptase - Anaphylaxis - Stupor - Food allergy.