

Association of Gln223Arg Polymorphism of Gene LEPR, Levels of Leptin and Nourishing Habits in Mexican Adolescents with Morbid Obesity

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Abstract : Background: Mexico occupies the second world-wide place of morbid obese people (10- 12 million). Factors that predispose the development of MO are genetic, environmental, physiological, psycho-social and behavioral (nourishing habits). Objective: Associate Gln223Arg polymorphism of gene LEPR, levels of leptina and nourishing habits with the presence of morbid obesity in adolescents of the south of Jalisco (México). Methods: In 41 adolescents (18 normal weight and 23 morbid obesity) of 12 to 19 years of age, both sexes that were measure size and weight with tanita scale and stadimeter to determine IMC. Morbid obesity was determined by tables of the WHO and was established with a standard deviation >3 . The Gln223Arg polymorphism have been identify by PCR and leptina levels by ELISA. Nourishing habits were evaluate by the questionnaire the Adolescent Food Habits Checklist. The statistical analysis was performed to compare mean scores obtained from the questionnaire when we compare morbid obesity vs. normal weight adolescents with $p=0.03$ and a significance of 95%. Results: frequencies alellics and genics were not stadistics significatives $p= 0,011$ and $p=0,279$ respectly when were compared between normal weight adolescents and morbib obesity Leptin levels and nourishing habits were associated with morbid obesity. The polymorphism not shown significance with morbid obesity. Conclusions: Dietary habits and leptin levels in adolescents are important factor that predisposes the development of obesity in adolescents. The presence of the polymorphism are not associated with morbid obesity in these subjects.

Keywords : leptin, nourishing habits, morbid obesity, polymorphism

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