

Association between tumor necrosis factor-alpha promoter polymorphisms and type 2 diabetes and obesity in Chilean elderly women Asociación entre polimorfismos de la región promotora del gen del factor de necrosis tumoral alfa (TNF-alfa) con obesidad y dia

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Background : Tumor necrosis factor-alpha (TNF-alpha) has an increased expression in the adipose tissue of obese subjects and is involved in insulin resistance. Aim: To screen for associations between -308G/A, -238G/A, -376G/A and -163G/A genetic variants of the TNF-alpha gene, diabetes and obesity-related variables. Material and methods: A group of 263 elderly women aged 60-90 years were recruited. Among them, an oral glucose tolerance test was performed and serum lipids measured in 100 women. TNF-alpha genotypes were determined by polymerase chain reaction (PCR) and analysis of restriction fragment length polymorphisms. Results: No significant differences

were found when comparing allele frequencies in TNF-alpha polymorphisms of normal subjects with those having impaired glucose tolerance or type 2 diabetes. After excluding patients with previous diagnosis of diabetes, no significant differences by polymorphism carrier status were found for plasma levels of lipids, glucose and insulin