

中文題目：在台灣族群中肥胖相關基因的差異性分析

英文題目：The obese relate gene variants in Taiwanese subjects

作者：李青長¹ 項正川¹ 蔡毓源¹ 陳玲姿¹ 蔡奇璋¹ 周玉祺¹

服務單位：國軍高雄總醫院內科部¹

Background: Obesity is due to the combined effects of genes, environment, lifestyle, and the interactions of these factors. The leptin and leptin receptor, ghrelin and ghrelin receptor, Adiponectin and adiponectin receptor genes have been intensively evaluated in the search of variants that could be related to obesity. The results of most of these studies have been controversial.

Materials and Methods: In the present study, were investigated the relationship of the leptin and leptin receptor, Adiponectin and adiponectin receptors gene variants with body mass index (BMI). One hundred obese patients ($BMI \geq 25 \text{ kg/m}^2$) were screened and compared to 200 lean healthy subjects ($BMI \leq 24 \text{ kg/m}^2$). Genomic DNA was extracted and amplified by polymerase chain reaction. Polymerase chain reaction products were digested with specific restriction enzymes and separated by electrophoresis. We proposed to investigate the possible relationships of the leptin and leptin receptor, Adiponectin and adiponectin receptors gene variants with body mass index (BMI), in Taiwanese subjects of different ethnic origins.

Results and Conclusions: The study is composed of 110 obese patients and 115 normal controls. Preliminary analysis by leptin (Rs7799039 G>A) and leptin receptor (Rs1137101 A>G), Adiponectin (Rs1501299 C>A) and adiponectin receptors (Rs7539542 G>C). Adiponectin receptors rs7539542 GG/CG+CC was significant difference ($p=0.024$; 95% CI=-0.557 to -0.042) between control and patients, and the T allele may an increased risk of obesity in Taiwanese.