

The Involvement of Insulin Receptor Genotypes in Pre- and Co-Obese Acanthosis Nigricans Children and Adolescent

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Abstract

Acanthosis nigricans (AN) is most common related to obesity as a manifestation of cutaneous insulin resistance in children and adolescent, while the interaction and time course between AN and obesity and detail mechanism for the pre- and co-obese appearance of AN (PCOAN) in child are unclear. In this study, the involvement of insulin receptor in child PCOAN was investigated via studying the association of polymorphisms of INSR gene with PCOAN. In total, 99 children PCOAN patients and 100 healthy controls recruited were genotyped and analyzed by PCR-RFLP method. Significantly different distributions were found in the frequency of the INSR His1085His genotypes, but not in other INSR genotypes, between the two groups. Our results provide not only the evidence of the T allele of INSR His1085His is correlated with the appearance of PCOAN but revealed that insulin receptor pathway may play an important role in this PCOAN.