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### GLUCOCORTICOID RECEPTOR GENE POLYMORPHISMS IN ITALIAN PATIENTS WITH ANOREXIA AND BULIMIA NERVOSA

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The etiopathogenesis of eating disorders (ED) is complex and poorly understood. The hypothalamic-pituitary-adrenal (HPA) axis, involved in the biological response to stress, could influence the onset and the course of ED. Several variants in the Glucocorticoid receptor (GR) gene have been related to different metabolic parameters suggesting a possible role in ED. We studied if genetic variants of GR could represent potential risk factors for the development of Anorexia Nervosa (AN) and Bulimia Nervosa (BN).

We investigated the distribution of several single nucleotide polymorphisms (SNPs) of the GR including N363S (rs6195), Er22/23EK (rs6189-6190), A/G SNP in exon 9beta (rs6198) and the intronic BclI polymorphism (rs41423247), in 118 Italian patients affected by AN and in 108 patients with BN. Moreover we studied 116 normal individuals and 177 obese subjects. The distributions of genotypes and allele frequency of the SNPs in all studied groups followed Hardy-Weinberg equilibrium and did not significantly differ from that of controls. A trend towards association was observed in case-control association analysis ( $p=0.07$ ) for rs6198. A correlation of metabolic parameters to the GR genotypes was performed.

We report the analysis of different GR SNPs for the first time in Italian patients with AN and BN. We failed to detect an allelic association between the studied SNPs in the GR gene and AN and BN.

None of the variants seems to influence these pathologies, not supporting a role for the GR gene as genetic risk factors for ED.