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*Short Communication*

# The functional polymorphisms -429T>C and -374T>A of the *RAGE* gene promoter are not associated with gestational diabetes in Euro-Brazilians

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**ABSTRACT.** The receptor for advanced glycation end products (*RAGE* or *AGER*) is a multiligand member of the immunoglobulin superfamily. *RAGE* is expressed in several tissues, including human myometrium, chorionic villi and placenta. Advanced glycation end products are the best studied ligands of *RAGE*; they have pro-inflammatory actions in human gestational tissues, increasing oxidative stress and the release of cytokines and prostaglandins. We

 

investigated the association of *RAGE* gene promoter polymorphisms -429T>C (rs1800625) and -374T>A (rs1800624) with gestational diabetes. A sample of 750 unrelated European origin pregnant Brazilian women were classified as nondiabetic (control group, N = 600) or having gestational diabetes (N = 150) according to American Diabetes Association 2009 criteria. Genotyping was performed by PCR-RFLP. The frequencies of the rare alleles -429C (6.3 versus 9.1%) and -374A (26 versus 30%) were not significantly different between the gestational diabetes patients and healthy pregnant women. Also, the -429T>C and -374T>A polymorphisms were not associated with body mass index, lipid profile, fasting glycemia, HbA1C, or insulin requirement. We found that functional promoter polymorphisms of the *RAGE* gene were not associated with gestational diabetes or its complications in these Euro-Brazilian patients.

**Key words:** Gestational diabetes; Single nucleotide polymorphisms; Genetic polymorphisms; *RAGE*; AGER

 