

Analysis of p53 codon 72 gene polymorphism in Brazilian patients with endometriosis

C.L. Ribeiro Júnior^{1,2*}, J.T. Arruda^{3*}, C.T.X. Silva³ and K.K.V.O. Moura^{2,3}

¹Centro de Medicina Fetal e Reprodução Humana - FÉRTILE, Goiânia, GO, Brasil

²Programa de Pós-Graduação Stricto Sensu, Mestrado em Genética, Goiânia, GO, Brasil

³Departamento de Biologia, Núcleo de Pesquisas Replicon, Universidade Católica de Goiás, Goiânia, GO, Brasil

*These authors contributed equally to this study.

Corresponding author: K.K.V.O. Moura

E-mail: kkverolli@ucg.br, katiakarinarav@yahoo.com.br

Genet. Mol. Res. 8 (2): 494-499 (2009)

Received February 3, 2009

Accepted March 13, 2009

Published May 5, 2009

ABSTRACT. We examined the frequency of p53 codon 72 polymorphism in 38 patients with endometriosis whose diagnosis was confirmed using videolaparoscopy. Half of the women were infertile. There were no significant differences in the genotype ($P = 0.0927$) or allele frequencies ($P = 0.1430$) for p53 Arg72Pro polymorphism between the two groups. We found a significant association between the heterozygous and homozygous proline genotypes and intense pain in the patients. Sixty-four percent of the patients were homozygous or heterozygous for proline in patients with degree III or IV endometriosis, but there was no significant difference compared to homozygous arginine genotype ($P = 0.6115$). We found that the proline allele is associated with substantial complaints (infertility associated with pain), when compared to the homozygous arginine genotype; we also found that the proline allele

was more frequent in endometriosis patients.

Key words: p53 gene; Endometriosis; Codon 72 polymorphism