Parkinson’s disease in Colombia: Do mutations in LRRK2’s play a role?

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Abstract

Genetic variation in the leucine-rich repeat kinase 2 (LRRK2) gene (G2019S, R1441C, R1441G) represents the most common determinant of Parkinson’s disease to date. While the distribution of LRRK2 mutations have been well-studied in Asia, Europe, and North America, few data are available from South America and no data whatsoever in Colombia. Our study consisted of a total of 203 patients with PD (102 females, 101 males). The mean age was 66.2 years old and the mean age at onset 51.3 years old. Samples were collected from the University of Antioquia in Medellin, Colombia. We sought to assess the frequency of the most common pathogenic LRRK2 substitutions in patients from Colombia. Out of the 203 patient samples tested 3 samples (1.4%) were positive for the G2019S mutation.