Idiopathic epilepsy with generalized tonic clonic seizures in Antioquia, Colombia: Is the joint Amerindian and Negroid racial admixture the cause of its high prevalence?

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Most Colombian populations stem from the admixture of Caucasians, Amerindians and Negroids. In the world these two latter ethnical groups show a significantly higher prevalence of epilepsy than the former one. We tested the hypothesis that the high prevalence of idiopathic epilepsy with generalized tonic clonic seizures found in the Antioquian population (Paisas), from Colombia, is due to their possible joint Negroid and Amerindian ethnic components. We have previously demonstrated that inheritance is the principal factor for developing epilepsy in this community. Analyses of racial admixture, heterogeneity between population, genetic distance, and phyletic relationships were performed among epileptic and non epileptic samples from the Antioquian community. Also Caucasians. Spaniards, Basques, Jews, Chileans, Negroids, Amerindians and Mongoloids were included in the analysis. Four highly polymorphic blood systems were used as genetic markers: RH, MNS, ABO and FY. They were chosen becau