Facial Clefting and Amerindian Admixture in Populations of Santiago, Chile

Palomino, Hernán M.

Palomino, Hernán

Cauvi, Doris

Barton, Sara A.

Chakraborty, Ranajit

Among congenital malformations, cleft lip with and/or without cleft palate has the highest relative frequencies and shows ethnic variation in prevalence. Both malformations are generally more common among the Asian than European populations. Many populations of Chile have genes of Amerindian and Spanish ancestry, with considerable variation in the degree of Amerindian admixture. Therefore, the association of clefting incidence with Amerindian admixture was investigated. The frequency of cleft lip and/or cleft palate in infants born in three private and two public maternity service clinics of Santiago, Chile, is reported. The private clinic patients have a higher socioeconomic status (SES) than those receiving the public services. They also differ in estimated Amerindian admixture. More than 200,900 consecutive birth records were reviewed. The rate of clefting malformations is 15.3 per 10,000 live births. Based on allele frequencies at the ABO and Rh blood group loci, the percentage of