

Silent cholinesterase gene in an Asian Indian family in Trinidad.

Abstract:

Cholinesterase activity was estimated in the serum of a Trinidadian female of Asian Indian descent. Her serum cholinesterase was pathologically low (0.17 U/ml) compared to the average reported for the population (10.59 ± 2.77 U/ml), and her dibucaine number could not be estimated. In a pedigree study her sister displayed similar enzyme activity and cholinesterase was 0.09 U/ml. Cholinesterase could not be detected in the sera of both sisters using electrophoresis. Among three generations of the family studied, the silent variant of the cholinesterase gene could be segregated in offspring of the maternal uncle (normal cholinesterase phenotype) whose spouse's serum displayed an intermediate dibucaine number. The possible inheritance of the silent gene in the pedigree is discussed.