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Prevalence of Connexin 26 Mutations in Patients from Jordan with Non Syndromic Hearing Loss

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ABSTRACT Mutations in GJB2 gene are a major cause of autosomal recessive congenital hearing loss and the cause in some rare cases of the autosomal dominant form. The objectives of this study were to estimate the frequency of connexin 26 35delG and 167delT mutations in congenital deaf Jordanian population and to estimate the frequency of carriers among normal Jordanian population. PCR was used to amplify two regions of the exon 2 of connexin26 and PCR products were analyzed using *Bsl* I and *Pst* I analysis followed by gel electrophoresis. Homozygous 35delG was detected in fourteen out of 114 (12.3%) of the familial group, while in the sporadic group there was one individual out of 38 (2.6%). There were five individuals with a heterozygous mutations ($35delG^{+}$/unknown), three of them were in the familial group (2.6%) and two in the sporadic group (5.3%). Among the normal group there was one carrier sample out of 95 (1.1%). The 167delT mutation was not detected in any of the deaf individuals, while it was detected in one individual from the normal group. The allele frequency for the 35delG mutation among the familial group was 13.6 % and 5.3 % for the sporadic group. The frequency of carriers among normal individuals was 1.1%. For the 167delT mutation the allele frequency was zero for the familial and sporadic groups.