Research Paper

J. Med. Sci., 3 (3): 209-213
May-June, 2003

Screening for PS1 mutations in a referral-based late-onset AD cases in Saudi Arabia

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Mutations in PS1 gene were investigated in 58 Saudi patients with late-onset Alzheimer's disease (AD) using PCR and direct DNA sequencing methods. Genomic DNA was extracted from blood of both patients and normal individuals using organic extraction methods. Genomic DNA was amplified for exon 4, 5, 6, 7, 10 and 11 encoding for amino acid 30 to 256 and 320 to 416 of PS1 gene. Electrophoresis was carried out with 1.5% agarose gel and separated fragments were stained with ethidium bromide. Fragments were sequenced and compared with the sequences of the respective exons of normal individuals as well as the data available in GenBank. No mutations were found in the late-onset AD patients understudy. The lack of mutations in exon 4, 5, 6, 7, 10 and 11 of PS1 indicates that the presence of mutations in PS1 gene is not a cause of late-onset AD in Saudi population.

Key words: Mutations, PS1, Alzheimer's disease (AD), Saudi Arabia

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JMS (ISSN 1682-4474) is an International, peer-reviewed scientific journal that publish original article in experimental & clinical medicine and related disciplines such as molecular biology, biochemistry, genetics, biophysics, bio-and medical technology. JMS is issued six times per year on paper and in electronic format.

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