

عنوان مقاله:

First Record of HAdV-D₂₀ Among Keratoconjunctivitis Patients in Iraq

محل انتشار:

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خلاصه مقاله:

Background: Human Adenovirus species D (HAdV-D) was common human viral pathogen especially in eye infection, consists of several types of which HAdV-D₈, -D₁₉ and -D₃₇ were common in eye infection. This study includes detection of HAdV-D types implicated in conjunctivitis based on L₂ (Penton protein) gene similarity. Methods: Conjunctival swabs were collected from Keratoconjunctivitis patients as eye infection related to adenovirus. Viral nucleic acids were extracted and specific primer pairs for HAdV-D L₂ gene (encoding for penton base protein) was used to amplify the target gene and only positive samples were sent to sequencing. Results: The results revealed that only 6 samples give positive results for L₂ gene amplification and then sent for sequencing for L₂ (penton protein) gene-based typing. The results show that 4 local isolates (S₁, S₂, S₃, S₄) were similar to HAdV-D₈ and 2 local isolates (S₄, S₅) were similar to HAdV-D₂₀. Also the results display that the HAdV-D₃₇, prominent HAdV-D type of human eye infection, may be variant of HAdV-D₂₀ due to that six variation were seen in S₄ and S₅ local isolates nucleotide sequence in relation to HAdV-D₃₇: T>C at position 14364, A>C at position 14411, T>C at position 14427, C>A at position 14448, G>A at position 14540 and T>C at position 14617, leading to only 2 amino acid change in resulted penton protein: T (Threonine) instead of K (Lysine) at position 204 and N (Asparagine) instead of D (Aspartic acid) at position 247. Conclusions: The current study concludes the possibility of implication of HAdV-D₂₀ in eye infections especially conjunctivitis.

کلمات کلیدی:

HAdV-D₈, HAdV-D₂₀, HAdV-D₃₇, conjunctivitis, Iraq

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