

## عنوان مقاله:

Detection of the drug resistance mutations in HIV reverse transcriptase and GP41 genes in Iranian HIV infected patients

## محل انتشار:

بیستمین کنگره بین المللی میکروب شناسی ایران (سال: 1398)

تعداد صفحات اصل مقاله: 1

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## خلاصه مقاله:

**Introduction and Objectives:** Reverse transcription plays a key role in the life cycle of the HIV virus and is responsible for the synthesis of double-stranded (ds) DNA from a viral single-stranded (ss) RNA genome. HIV envelope glycoprotein is responsible for viral attachment to target cells and the subsequent fusion of viral and target cell membranes. Several inhibitors have been introduced to inhibit RT and GP41 functions. However, recently, several drug resistance mutations were found in both regions. The aim of this investigation was to define the drug resistance mutations in both RT and GP41 genes and define the effect of these mutations on the interaction between both proteins and inhibitors. **Material and methods:** RNA of the sera of 30 patients were extracted and then were used to amplify the gp41 and RT genes by using Nested PCR method. After sequencing, the results were analyzed to define drug resistance mutations. The physicochemical properties, post-modification positions, structural analysis, and subtyping were evaluated by using several reliable Bioinformatics tools. **Results:** In spite of several mutations which were found in the GP41 gene, we could not find any drug resistance mutations. However, the analysis of RT sequences showed a high level of resistance to RT inhibitors in several samples. Subtyping analysis showed AD was the most prevalent subtype among Iranian patients. **Discussion:** Our results showed the possibility of Gp41 inhibitors .to control HIV infections in Iranian infected patients

**کلمات کلیدی:**

Reverse transcriptase, GP41, HIV

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