Detection of Seasonal Influenza H1N1 and H3N2 Viruses using RT-PCR Assay during 2009 Flu Pandemic in Golestan Province

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Abstract

Background and Objective: The emergence of a novel H_1N_1 influenza A virus of animal origin with transmissibility from human to human poses pandemic concern. Current subtypes of Seasonal influenza A viruses spread in human are influenza A H1N1 influenza A H3N2 and influenza type B viruses. The aim of this study was to determine current strains of the H3N2 and new H1N1 subtypes of influenza A virus from patients suspected influenza infection in 2009 flu pandemic in Golestan province, Iran.

Material and Methods: In this descriptive study, respiratory samples (n = 153) from patients with acute respiratory symptoms were collected in 2009 flu pandemic applied during 2009 pandemic influenza in Golestan province. After reverse transcription of extracted viral RNA, PCR was developed for both H_1N_1 and H_3N_2 subtypes using CDC specific primers.

Results: The mean age of patients was 16.59. Of them 45.1% were male. Thirteen (8.49%) were infected with seasonal influenza H1N1 and 25(16.33%) with seasonal H_3N_2 influenza.

Conclusion: The rate of infection with seasonal H_1N_1 and H_3N_2 is similar to other studies reported from Iran, but lower than the rate reported from other parts of the world.

Key Words: Influenza A Virus, H_1N_1, H_3N_2, RT-PCR, Iran