DIAGNOSIS OF INFLUENZA VIRUS INFECTION IN 2010/11 SEASON IN SOUTH BACKA REGION (SERBIA)

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Introduction

The diagnoses of influenza virus infection can be made using isolation of influenza virus in embryonated eggs or cell culture, serology or molecular diagnostics by polimerase chain reaction (PCR or real time PCR). Different serological tests can be applied hemagglutination inhibition , complement fixation test, microneutralization test, ELISA.

Aim

The aim of the study was to investigate influenza activity in South Backa region of Autonomous Province of Vojvodina during 2010/11 influenza season applying molecular and serological methods.

Material and methods

Thirty upper respiratory tract speciman were colected and tested by real time PCR (RT-PCR) using CDC real time RT-PCR protocol for the detection and characterization of influenza A (H1N1)2009 , A(H3N2) and influenza B.Samples were taken of persons with acute febrile respiratory illness, obtained within 3 days of illness onset. One hundred twenty two serum samples of persons suspected of having influenza infection, were tested by ELISA Influenza A/B virus IgG /IgA tests (Producted by Virion/Serion, Würzburg, Germany). Serum samples and respiratory speciman were colected during influenza 2010/2011 seasons.

Results

In 16 of 30 (53,33 %) patients tested by RT-PCR, influenza A(H1N1)2009 were diagnosed. In 2 of 30 (6.67%) influenza B was detected.

Using serological metod influenza A virus infection was diagnosed in 16% (19/122)of patients.44% (54/122)of the patients were negative , 35%(43/122) had past infection and 5%(6/122) of patient should be folowed for establishing diagnosis. In 9% (11/122) of patient influenza B virus infection were detected, 44% (54/122) were negative, 38%(46/122) had past infection and 9% (11/122) of patient had possible influenza B virus infection.

Conclusion

During 2010/2011 season influenza A and B viruses were activ in South Backa Region of Autonomous Province of Vojvodina (Serbia).

Keywords: Influenza A/B, ELISA, RT PCR

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