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 polymerase 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 specimen were collected 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 (Produced by Virion/Serion, Würzburg, Germany). Serum samples and respiratory specimen were collected 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 method 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 active in South Backa region of Autonomous Province of Vojvodina (Serbia).

Keywords: Influenza A/B, ELISA, RT PCR

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