Background and aims Hepatitis C virus (HCV) infection is cause of significant morbidity and mortality, especially in children. The study aimed to describe the epidemiological characteristics of children infected with HCV diagnosed in „Grigore Alexandrescu” Children’s Hospital, Bucharest.

Methods We reviewed the medical records of HCV infected children diagnosed between January 1991 and December 2012 and analysed demographic data, viral serology and route of infection.

Results We identified 58 cases, all diagnosed by detection of anti-HCV antibodies. 47.3% of the patients came from Bucharest, the rest residing in neighbouring districts. They were equally distributed by means of sex (52.6% boys) and age groups. Regarding alleged route of transmission: 43.7% had infected mothers (perinatal infection), 22.8% had a history of parenteral procedures (surgical intervention, blood transfusions, iv drug abuse, tattoos). 69.5% underwent evaluation for fibrosis, by either hepatic biopsy or fibroscan: 85% had a low fibrosis score (< 2). 58% of the patients had minimal cytology, with ALT less than 1.5 fold the normal value. Regarding viremia, 40% of the patients had less than 100 000 copies and only 1.75% over 10 millions. No correlation was found between the level of transaminases and the viraemia or fibrosis scores on hepatic biopsy.

Conclusions HCV infection in children is a public health issue. Materno-fetal transmission is the main route of infection followed by transfusions and other parenteral routes. We predict that a thorough pregnancy monitorization and an accurate blood donor screening will significantly reduce the number of infected children in our country.

Background and aims Acute respiratory tract infections are a major cause of morbidity and mortality worldwide, particularly in infants and young children. High-throughput, accurate, broad etiologic diagnosis tools were critical for effective epidemic control. In this study, the diagnostic capacities of an Ibis platform based on PCR/ESI-MS assay were evaluated on clinical samples.

Methods A total of 120 NPAs were collected from 120 children (< 5 years old) hospitalised with lower respiratory infections between November 2010 and October 2011. The respiratory virus detection assay was performed with PCR/ESI-MS assay and DFA assay respectively. The all discordant PCR/ESI-MS and DFA results were resolved with RT-PCR plus sequencing.

Results The overall agreement for PCR/ESI-MS and DFA was 98.3% (118/120). Compared to the results from DFA, the sensitivity and specificity of the PCR/ESI-MS assay were 100% and 97.5%, respectively. The PCR/ESI-MS assay also detected more multi-viruses infection and demonstrated more detailed types information than DFA. Among the 12 original specimens with confirmed PCR/ESI-MS results. 47.3% of the patients came from Bucharest, the rest residing in neighbouring districts. They were equally distributed by means of sex (52.6% boys) and age groups. Regarding alleged route of transmission: 43.7% had infected mothers (perinatal infection), 22.8% had a history of parenteral procedures (surgical intervention, blood transfusions, iv drug abuse, tattoos). 69.5% underwent evaluation for fibrosis, by either hepatic biopsy or fibroscan: 85% had a low fibrosis score (< 2). 58% of the patients had minimal cytology, with ALT less than 1.5 fold the normal value. Regarding viremia, 40% of the patients had less than 100 000 copies and only 1.75% over 10 millions. No correlation was found between the level of transaminases and the viraemia or fibrosis scores on hepatic biopsy.

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