Type: Poster Presentation

Final Abstract Number: 64.013
Session: Virology and Viral Infections (Non-HIV) II
Date: Saturday, April 5, 2014
Time: 12:45-14:15
Room: Ballroom

Monitoring viral infection after allogeneic stem cell transplantation–single center experience

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Background: Viral infections after stem cell transplant are less frequently reported compared to bacterial or fungal infections, but usually are more severe and associated with high mortality.

Methods & Materials: This study analyzes the incidence and outcome of viral infections and correlation with immunosuppressive therapy in 67 patients (13 children and 54 adults) receiving allogeneic stem cell transplantation and evaluated in Bone Marrow Transplant center, Fundeni Clinical Institute, Bucharest. Standard prophylactic treatment was Acyclovir 1000 mg per day during transplant procedure and 180 days after allogeneic HSCT. We assessed–patient and donor CMV, EBV status before allogeneic HSCT. All patients were monitorized with RT-PCR for CMV, EBV, ADV, VZV, HSV-1, HHV-6, HHV-8 and with Nested PCR for JCV, BKV first year after allotransplant.

Results: The viral diagnosis showed 13 pediatric cases (7 reactivation of CMV, 3 CMV disease, 1 EBV reactivation, 1 HHV-6 encephalitis, 2 polyomavirus cystistis) and 15 adult cases (11 reactivation of CMV, 2 with EBV reactivation and 2 with BK virus). 5 of 18 patients developed primary CMV infection. 14 from 28 patients had a positive PCR viral load in first 180 days after allogeneic HSCT. 20 patients from 28 associated clinical signs of acute or chronic GVHD.

Conclusion: The most severe clinical aspects have been associated with severe immunosupresion for GVHD. Early detection of viral infection and appropriate treatment are very important factors for outcome.

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Identification of a new APMV isolate in Ukraine

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Background: Up to day there are 12 serologically different types of avian paramyxovirus. Full genome sequences of almost all of them were published in GenBank. In this study molecular-genetics examinations of new unknown APMV isolate were done.

Methods & Materials: APMV isolate was obtained in 2011 from cloacal swabs of goose (*Anser albifrons*) and marked as APMV/white-fronted goose/Ukraine/2011. Serological examination of new isolate was provided using monoclonal antibodies in haemagglutination-inhibition tests against APMV1-9.Total RNA from the isolate was obtained using TRI Reagent. RT-PCR, cloning into TOPO and plasmid purification, sequencing and phylogenic analysis were done as described previously (Diel DG et al., 2011).

Results: As the results obtained isolate showed cross reactions with APMV7. Using random DNA library it was found 3 regions, which could identify by BLAST. The first region with the length of 367 bp had 70% nucleotide sequence identity to the APMV 12 isolate Wigeon/Italy/3920_1/2005 at genome position 2419-2784. Next region (344 bp) had 66% identity to the same APMV 12 isolate at position 4760-5103. The last region (365 bp) showed 71% identity to Newcastle disease virus strain M4 at position 12569-12928. This high divergence from the currently known APMV allows us to make the assumption that this isolate might be a new serotype of APMV, but it needs to obtain full genome-sequencing and detailed study of the biological properties of the virus.

Conclusion: According to the obtained results we have confirmed circulation of new unknown APMV in wild birds on the territory of Ukraine. Obtained isolate showed moderate similarity to APMV 12 and APMV 1.

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Hepatitis B vaccine knowledge and uptake among medical students in Cameroon

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Background: Hepatitis B virus (HBV) is the most contagious blood borne pathogen. The risk of occupational exposure to HBV among health care workers is a major concern, especially among medical trainees. In this study, we describe the knowledge of risk factors for HBV infection, history of accidental exposure to blood, awareness of HBV vaccine and the vaccination status among medical students in Cameroon.

Methods & Materials: In April 2012, a cross-sectional survey was carried out using a pretested self-administered questionnaire among 111 medical students

Results: Sixty-two students (55.9%) had had at least one accidental exposure to blood since the beginning of their medical training, with a median of 2 (IQR, 1-3) exposures. There was a good knowledge of the risk factors for HBV infection and awareness of HBV vaccine among participants. However, only 20 (18%) participants had completed the three doses of primary HBV vaccination. Furthermore, only 2 of the 20 (10%) adequately vaccinated participants had a post-vaccination test to confirm a good immune response and thus an effective protection against HBV infection. The main reason for not being vaccinated was lack of money to pay for the vaccine (45.6%). Forty seven (42.3%) participants had been sensitized by their training institutions about the importance