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POLYOMAVIRUSES AS CAUSATIVE AGENTS OF POST TRANSPLANTATION COMPLICATIONS IN CHILDREN RECIPIENTS OF HCT AND KIDNEYS

E-POSTER VIEWING: AS06. IMMUNOLOGY & COMPROMISED HOST / AS06E. INFECTIONS IN SOLID ORGAN TRANSPLANTS

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Background: The study is devoted to study the frequency of reactivation of BKV and JCV polyomaviruses (PVs) in children after hematopoietic stem cell (HSC, n=144), kidney transplantation (n=97) with subsequent analysis of their contribution to the development of post transplant complications.
Methods: According to the results of PCR studies of urine and serum, PVs were detected in 70.83% of the examined HCT recipients and 49.5% of kidney recipients.
Results: PVs load levels in serum of HCT recipients ranged from 99 GE/ml to 1.2 × 109 GE/ml, and in urine – from 44 GE/ml to 7 × 1012 GE/ml. Reactivation of PVs in this group began during the conditioning period, reaching a peak frequency of their detection on days 15-28 after transplantation, followed by a decrease. PV-associated hemorrhagic cystitis in children who received HCT occurred in 4.86% of cases. One patient had a severe form with the development of BKV-associated hemorrhagic nephritis with a risk of developing bladder tamponade, 2.7% of patients had a moderate form.
Conclusions/Learning Points: In pediatric kidney recipients, the detection rate of BKV reached its maximum (62.5%) by 3 months after transplantation. JCV reactivation peaked at 2 weeks post transplantation. Graft dysfunction was diagnosed In 8.2% of child kidney recipients with detected PV viruria. The results indicate high frequency of PV reactivation in HCT and kidney recipients in the post transplantation period and point out to the necessity of quantitative monitoring of the polyomavirus from the first days after the start of immunosuppressive therapy to prevent the development of severe viral complications.

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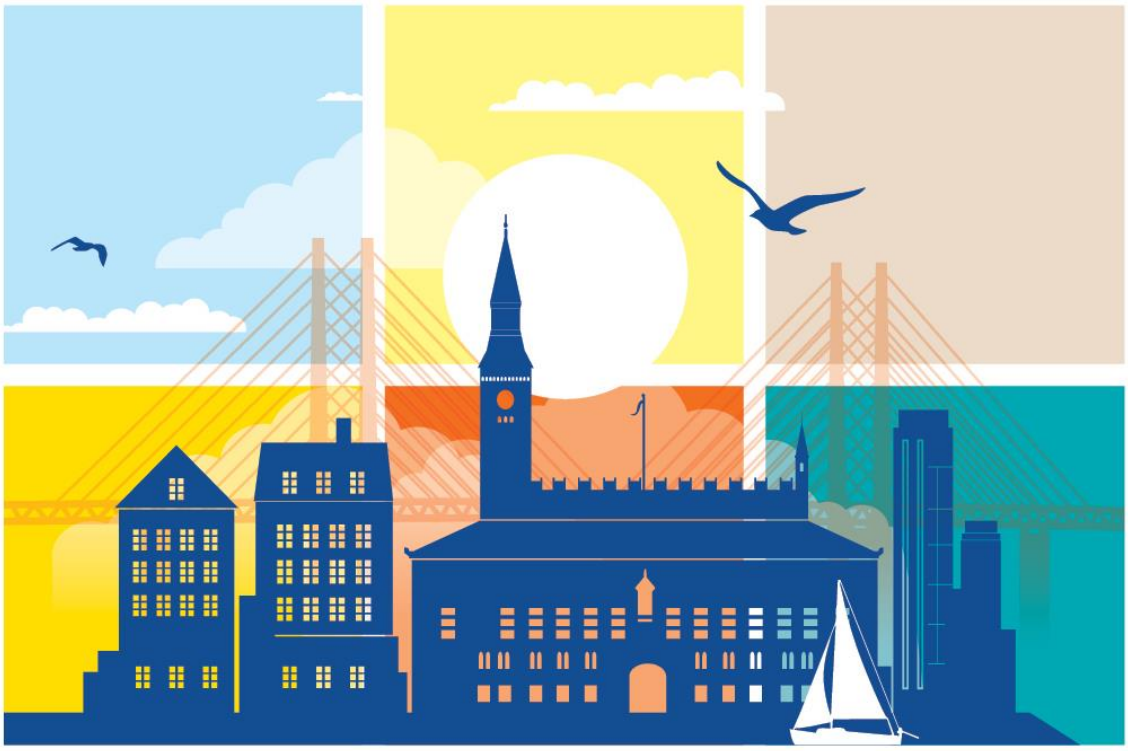

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