Our experience of prevention and treatment of cytomegalovirus infection in children after transplantation of the liver

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Aim: Evaluation of the effectiveness of the prevention of the treatment of cytomegalovirus infection after liver transplantation in children under 1 year of age with biliary atresia.

Material & Methods: Since March 2016 18 liver transplants from a living related donor in children were performed. The age of the patients ranged from 7 months to 8 years. Of these 15 (83.3%) patients were with biliary atresia. The number of girls is 10 (66.7%) and boys 5 (33.3%). At the time of diagnosis, most of the children registered formed cirrhosis of the liver.

Results: All recipients with positive quantitative parameters of PCR received CMV-specific immunoglobulin 3-5 months before the operation. The left lateral sector was transplanted to 15 patients with biliary atresia from CMV of the seropositive related lifelong donor (D+/R+) 13 donors and from CMV 1 seronegative donor (D-/R+), 1 to the simultaneous transplantation (liver and kidney) 2 patients with cirrhosis of the liver in the outcome of autoimmune hepatitis. In all children, biliary atresia was combined with a cytomegalovirus infection, 7 of them with an active form. The observation period is from 14 days after the operation to 2 years. After the operation, a three-component immunosuppressive therapy was performed (prednisolone, Sellsept, Tacrolimus). Activation was noted in 2 patients with inactive form of CMV. In 2 children, neurologic symptoms developed - 1 with active form of CMV and in 1 child it was associated with a toxic effect of immunosuppressive therapy (tacrolimus), which was managed by conservative methods of treatment. All children with cytomegalovirus infection received antiviral therapy with valganciclovir at a rate of 18 mg/kg for 1 month, against which the virus load in children with an active CMV phase was reduced. Six months after the operation, in all children, the quality of PCR for CMV was negative. At 9 months after liver transplantation, 1 patient with an inactive form of CMV had an increase in viral load.

Conclusions: Thus, our experience once again confirms the role of cytomegalovirus infection in the development of biliary atresia with the formation of liver cirrhosis and requires adequate follow-up after liver transplantation.

Biography

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