

Treatment of respiratory-syncytial viral infection in children of early ages with ribovirin in aerosol. S.G.Cheshik, R.V.Vartanyan, L.A.Ivanova. The D.I.Ivanovsky Institute of Virology, Moscow, Russia.

Therapeutic effect of virasol in aerosol has been studied in children with laboratory confirmed diagnosis of RS-viral infection complicated with brochoobstructive syndrome. The drug was kindly provided by ICN Pharmaceuticals (USA). 60 children altogether aged between 1 mnth. and 4 years were supervised. Patients were randomly selected into experimental (30 patients) and control (another 30 children) groups. Clinical manifestations of the disease were practically identical in both groups that permitted objectively evaluate the therapeutic efficacy of the drug. Inhalations with virasol were performed with the help of small particle aerosol generator (SPAG-2). The dose was 10 mg/kg of weight per day. The duration of one course of treatment was 3 to 5 days. It has been established that virasol in aerosol had noticeable healing effect in case of RS-viral disease in children of early age, that was demonstrated by statistically reliable reduction of broncho- obstructive syndrome duration, more rapid disappearance of bronchial rales and decrease of coughing and rhinitis period. Rapid elimination of RS-viral antigen showed the anti-viral action of virasol (two times faster compared to control group). Virasol was recommended for inhalation treatment of early aged children suffering of RS-viral disease with brochoobstructive syndrome.

ABITYLGUANIDE: ADENOVIRUS REPRODUCTION INHIBITOR EFFICIENT IN THE TREATMENT OF EPIDEMIC KERATOCONJUNCTIVITIS (EKC). A. S. Galabov, P. Vassileva, V. Vassileva, N. Arshinkov, V. Karabasheva, and D. Pencheva. Department of Virology, Institute of Microbiology, Bulgarian Academy of Sciences, Sofia; Medical Academy, Sofia; Varna Medical School, Varna, Bulgaria

The biguanide derivative abitylguanide (AbG) showed a strong inhibitory effect on the in vitro reproduction (in human embryo kidney cell cultures and HeLa cells) of a large spectrum of human adenoviruses (serotypes 1-8), standard laboratory as well freshly isolated strains. A correlation was observed between the adenovirus susceptibility to AbG and their classification according to Rosen. AbG showed highest activity (inhibitory effect $>3.0 \lg ID_{50}$ in the one-svle setup) against viruses belonging to subgroup III, and a lowest effect ($\Delta \lg 1.5-2.0$) against those of subgroup I. Electron microscopy study of adenovirus 5 inoculated human embryo kidney cells treated by AbG showed a 10-fold decrease of the number of virions containing cells, and virion crystals in the nuclei and protein paracrystals were not observed. During an outbreak of EKC infection, caused by adenovirus 8, two placebo-controlled clinical trials were carried out on 349 patients. Adenostatin eyedrops (1% AbG, Pharmachim, Sofia) proved to be very effective in the treatment, especially in reduction of the development of keratitis: in 43.8% in the treated patients as compared to 92-100% in the placebo group. Only mild forms of keratitis appeared during Adenostatin treatment. During another outbreak controlled trials were performed in the Medical School Clinics of Varna (110 patients), Plovdiv (50) and Pleven (35). They confirmed the curative properties of the drug in patients with EKC, and especially its protective effect in the second eye, where only 22.6% were affected in the treated group as compared to 80% in the untreated controls. We believe that Adenostatin could be recommended as anti-adenoviral chemotherapeutic drug.