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ANTIVIRAL EFFECT OF BC_{30} IN EXPERIMENTAL INFLUENZA VIRUS INFECTION IN WHITE MICE. A.G.UZUNOVA. Institute of microbiol. Bulgarian Academy of sciences. Sofia. Bulgaria

The antiviral effect of BC_{30} /bacterial inhibitor/ has been confirmed in the case of experimental influenza infection in white mice infected with influenza viruses A/Hong Kong and A/PR₈ adapted to them. There has been established 70 % defence on the group of treated animals compared to 100 % lethality for the control group of animals which have not been treated, as well as reduction of the virus titre in the lungs of the mice with 3.7 log ID₅₀.

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Inhibition of Virus Infections of Mice by the Combination of Aerosolized MnSOD and Ribavirin. R.W. Sidwell, V.R. Moss, J.H. Huffman, R. Nimrod, and A. Panet. Inst. for Antiviral Research, Utah State Univ., Logan, UT 84322-5600, USA; and Biotechnology General, Rehovot, Israel.

Manganese superoxide dismutase (MnSOD) has previously been reported to inhibit influenza virus infections through reduction of oxygen-free radicals which are involved in pathogenesis of the disease. Experiments were run to investigate the use of MnSOD administered by small-particle aerosol (s.p.a.) in combination with similarly aerosolized ribavirin, a known influenza virus inhibitor, on influenza A/NWS/33 (H1N1) virus infections of BALB/c mice. MnSOD was used in doses of 40 and 10 mg/ml given 1 hr once daily for 5 days beginning 72 hr after virus exposure. Ribavirin was given in doses of 60 and 15 mg/ml for 20 min 3 times daily for 5 days beginning 16 hr post-virus exposure. Both compounds were relatively efficacious when used alone; when used together, however, synergistic inhibitory effects were seen in preventing the usual decline in arterial oxygen saturation, in reducing lung weights and lung scores, and in reducing lung virus titers in the infected animals, as determined by 3-D analysis using MacSynergy™. No enhanced toxicity was observed. A second experiment was run using the same treatment schedules but with ribavirin used in doses of 3.75 mg/ml and 0.9 mg/ml. In this experiment, ribavirin used at these low doses was essentially not effective, and only moderate enhancement of antiviral effect was seen using the combination. (Supported by Contract NO1-AI-15097 from the Antiviral Research Branch, NIAID, NIH).