CORONAVIRUS INFECTION: TYPES, CLINICAL FEATURES, WAYS OF PREVENTION

O. L. Bororova

SO «Yanovsky National institute of phthisiology and pulmonology NAMS of Ukraine», Kyiv, Ukraine

Abstract. In 2019-2021 the world faces a pandemic of a new disease – COVID-19, caused by a new human coronavirus – SARS-CoV-2. However, human coronaviruses have been discovered only in the 1960s. They are constantly circulating in nature. During last twenty years members of the Coronaviridae family have caused epidemics twice. And both times coronavirus disease was characterized by a severe course due to the development of SARS and acute respiratory distress syndrome (ARDS). This paper presents an overview of the data published as at January 2021. A brief description of the representatives of the Coronaviridae family is given: historical background, morphology, epidemiology, resistance to physico-chemical factors. The paper presents the clinical manifestations of coronavirus infection, complications of the disease and modern approaches to treatment. There is a brief description of potential drugs for non-specific infection prophylaxis. As there are currently no specific etiotropic agents for the treatment and prevention of coronavirus infection (antivirals are undergoing clinical trials and institutions all over the world are working to develop vaccine), an urgent problem worldwide is the search for new and already known agents with virucidal activity against these pathogens. The use of quaternary ammonium compounds is promising method in this direction. Decamethoxine as a representative of this group is characterized by a broad antimicrobial spectrum and lack of interaction with human cells. Based on our study of the virucidal activity of decamethoxine against a prototype coronavirus strain, we propose a method of preventing coronavirus infection by disinfection of skin and mucous membranes with a solution of decamethoxine.

Key words: coronaviruses, COVID-19, pathogenesis, clinical course, treatment, prevention,

Olena L. Bororova,

junior researcher of the department of treatment technologies for nonspecific lung diseases SO «Yanovsky National institute of phthisiology and pulmonology NAMS of Ukraine», 10 Amosova Str., 03038, Kyiv, Ukraine, E-mail: elena_bororova@ukr.net

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