

Shams Anas

**THE PATHOGENESIS OF ACUTE SEVERE RESPIRATORY SYNDROME
ASSOCIATED WITH CORONAVIRAL INFECTION**

Scientific supervisor: PhD, ass. professor Adamovich T. G

*Department of microbiology, virology, immunology
Belarusian state medical university, Minsk*

Coronaviruses (CoVs) are important pathogens for human and vertebrates. They can infect respiratory, gastrointestinal and central nervous system of human, livestock, birds, bats, rodents and other animals. Since the outbreaks of the severe acute respiratory syndrome (SARS) in 2002 and the Middle East respiratory syndrome (MERS) in 2012, the possibility of CoVs transmission from animals to human has been proved. Since the end of 2019, an outbreak of mystery pneumonia in Wuhan has been drawing tremendous attention around the world. The causative agent of the pneumonia has been identified as a novel coronavirus by deep sequencing and etiological investigations by at least 5 independent laboratories of China and USA. On 12 January 2020, the World Health Organization temporarily named the new virus as 2019 novel coronavirus (CoVid-2019).

The goal of the paper is to review the current data about mechanisms of coronaviruses evading host innate antiviral response. Particularly, the host pathogen recognition receptors and the signal transduction pathways role in pathogenesis of CoVs infections with acute respiratory syndrome (SARS, MERS, CoVid-2019 infection) are discussed.

Conclusion. Better understanding of the dynamic interaction between host and coronaviruses, and the pathogenesis of acute severe respiratory syndrome development allows to work out new strategies of treatment and prevention.