



Fund “Nauka” Project № 20025 Resume – Competition-Based Session 2020:

“Coagulation factors in patients with COVID-19 infection”

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On March 11th 2020, World Health Organization (WHO) declared a pandemic the disease caused by the new corona virus SARS-CoV-2. The number of confirmed cases up until October 20th 2020 is over 40.2 million people with over 1 116 131 confirmed deaths (<https://www.who.int>). Up to 14% of patients are presented with interstitial pneumonia that can lead to acute respiratory distress syndrome and multiple organ failure. In patients with COVID-19 coronavirus, a significant increase in coagulation factors is seen as a risk factor for an adverse outcome, which suggests a coagulopathy. More and more data shows that severe COVID-19 is connected to procoagulant state with potential effect over the risk of thrombosis, and the level and severity of these changes are not explored enough yet. The assessment of some of the coagulation factors will show the risk of thrombosis and other coagulation dysfunction that are connected to the COVID-19 infection, it will give an overview of the knowledge of the topic, and will help develop diagnostic and therapeutic maneuvers.

Expected results:

1. Collection of data about coagulation status in patients with COVID-19 infection and pulmonary manifestations in Bulgaria;
2. Risk assessment of coagulation factors, risk stratification, analysis of underlying genetic disorders, temporal changes in coagulation factors in patients with COVID-19 infection and pulmonary manifestations;
3. Analysis of collected data in the context of diagnostic and therapeutic approach, with modification of the risks of unwanted fatal and non-fatal accidents;
4. The research will be one of the firsts in Bulgaria in patients with infection, caused by COVID-19 and one of the few highlighting the connection between genetic coagulation status and the actual measured markers regarding coagulation with a COVID-19 infection.