

THE USE OF HERBAL MEDICINES WITH ANTIVIRAL ACTIVITY OF PLANT ORIGIN FOR THE TREATMENT OF DISEASES CAUSED BY COVID-19 INFECTION

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In the complex therapy of coronavirus disease, licorice extract is used, which has a positive effect i.e. eradication of this infection due to the presence of glycyrrhic acid in its composition. Glycyrrhizic acid may inhibit COVID-19 through its anti-oxidant, anti-viral, and anti-inflammatory actions, and its ability to activate the immune system, and targeted therapy for those pathways is a predominant strategy to inhibit the cytokine storms triggered by SARS-CoV-2 infection.

Herbal medicines containing a purified extract from the sprouts of the *Solanum tuberosum* plant have an immunomodulatory effect and preventive effect in patients with diseases caused by the SARS-CoV-2 virus. Panavir belongs to the preparations made from this plant.

The extract of the tropical plant *garcinia* is also used to treat diseases caused by COVID-19 infection. This medicine inhibits the production of inflammatory mediators in patients with coronavirus disease.

Extracts from the annual wormwood plant are also used to treat diseases caused by the SARS-CoV-2 virus. Wormwood tincture can also be prepared from a biennial wormwood plant. Wormwood preparation is widely used in African countries for the treatment of malaria and for the eradication of helminth infection. The wormwood drug

artesimin has been used for the last 20 years for treatment of malaria in African countries.

Preparations containing wormwood extract began to be used for the prevention and treatment of coronavirus disease. They have antioxidant, anti-inflammatory, analgesic, sedative, antibacterial, antiviral, hypolipemic, and antitumor effect.

Interesting observations are available in the hospital clinics of Eastern Europe. The drug allapinin has been used to treat cardiac arrhythmias in Eastern Europe for the last thirty years. This drug is an alkaloid called bromhydrate lappaconitine. This alkaloid is isolated from the perennial grower plant of the aconite, which belongs to group buttercup plants. This plant comes from the wormwood family.

Currently, there are observations that indicate that when allapinin was treated, along with a positive effect on cardiac arrhythmias, the severity of the course of coronavirus disease was significantly more likely to decrease compared to patients with this pathology who did not take allapinin.

The authors of this work have one clinical observation, which concerns one patient who has been diagnosed with coronavirus disease. This patient was admitted on December 15, 2020 to one of the departments for the treatment of coronavirus disease of the third city hospital of the Poltava city in Ukraine. Polysegmental COVID pneumonia was detected in this patient after an X-ray examination of the chest organs. A complication of this pneumonia was the development of infectious myocarditis. Frequent and stable extrasystolic arrhythmia was detected after registration of an electrocardiogram on 12/21/2020. Various wet wheezes were heard over the lung fields on this day. Blood saturation levels were 86-92% during the first week of hospital stay.

Allapinin was administered orally at 50 mg 3 times a day, starting from the sixth day of the patient's stay in the hospital. The course of therapy with allapinin was 14 days. The patient was prescribed antibacterial therapy, including infusions of amoxicillin 500 mg 2 times a day, ceftriaxone 1 gram after dissolving in 200 ml of sodium chloride saline solution intravenously 2 times a day and levofloxacin 500 mg after dissolving in 200 ml of sodium chloride saline solution intravenously 2 times a day. Detoxification therapy was included in the course of treatment. Infusions of reosorbilact were carried out daily in dose 200 ml 1 time a day.

The improvement of the patient's condition occurred faster after the administration of allapinin. The positive dynamics of the patient's condition was observed upon discharge from the hospital on January 5, 2021. Wet wheezing is not heard in the lungs during their auscultation. The correct sinus rhythm is recorded on the ECG. Blood indices saturation equals 96-97%. Thus, it can be concluded that allapinin therapy contributed to the improvement of the patient's condition.