

POSTER PRESENTATIONS

COMPLEX POST-COVID GYNECOLOGICAL REHABILITATION USING KUKUMAZIM: CLINICAL EVALUATION AND IMPLEMENTATION OF A STANDARDIZED REHABILITATION PROGRAM

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Post-COVID syndrome is frequently accompanied by persistent inflammatory, endothelial, and microcirculatory disorders that adversely affect the female reproductive system and contribute to chronic inflammatory gynecological diseases and abnormal uterine bleeding. Endothelial dysfunction, activation of inflammatory cytokines, hypercoagulation, and deficiencies of vitamin D and essential trace elements are considered key pathogenetic mechanisms. The aim of this study was to evaluate the effectiveness of a comprehensive rehabilitation program incorporating enzyme physiotherapy with Kukumazim 350 IU for women with post-COVID gynecological disorders.

A prospective study (2020–2022) included 150 women after COVID-19, with 95 receiving conventional therapy supplemented by vitamin D and micronutrient correction, electrophoresis and/or phonophoresis with Kukumazim 350 IU, 55 receiving standard therapy, and 30 healthy women serving as controls; treatment efficacy was assessed by inflammatory, endothelial, coagulation, biochemical, ultrasound, and Doppler parameters ($p < 0.05$).

Comprehensive rehabilitation including Kukumazim resulted in significantly greater clinical improvement than conventional treatment alone. A marked reduction in the pro-inflammatory cytokines TNF- α and IL-6 was observed together with normalization of endothelial function indicators. Significant improvement in hemostatic parameters was demonstrated by decreased fibrinogen and D-dimer levels, indicating attenuation of the hypercoagulable state characteristic of post-COVID syndrome. Correction of vitamin D deficiency and restoration of magnesium and zinc concentrations were also achieved. Doppler examination confirmed improved pelvic blood circulation following treatment. All rehabilitation procedures were well tolerated without clinically significant adverse effects. These findings indicate that enzyme physiotherapy provides additional pathogenetic effects directed toward correction of chronic inflammation, endothelial dysfunction, impaired microcirculation, and coagulation abnormalities.

The developed rehabilitation protocol has been implemented as a standardized clinical approach and supported by the state registration of the computer program "Method of Using Kukumazim for the Rehabilitation of Inflammatory Diseases of the Female Reproductive Organs in the Post-COVID Period" (Certificate DGU No. 58823, Ministry of Justice of the Republic of Uzbekistan). The obtained clinical results confirm that Kukumazim-based enzyme physiotherapy is a safe, standardized, and reproducible component of comprehensive post-COVID gynecological rehabilitation and may improve recovery through anti-inflammatory, endothelial-protective, fibrinolytic, and microcirculatory effects. The proposed rehabilitation program represents a promising approach for broader clinical implementation and further multicenter studies.