

## Acute Dorsalgia and Spondylitis in General Medical Practice of Postcovid Syndrome: Diagnosis and Justification of Pathogenetic Therapy

**Katyukhin VN\***

*MU Reaviz, MC Euromedics, St. Petersburg, Russia*

**\*Corresponding Author:** Katyukhin VN, MU Reaviz, MC Euromedics, St. Petersburg, Russia.

**Received:** October 01, 2022; **Published:** October 19, 2022

### Introduction

Real clinical practice brings to medical attention new and little-studied phenomena of the painful inflammatory state of patients after the acute stage of the disease caused by coronavirus. The literature has established the neurotropicity of SARS-CoV-2, which causes complications in the form of myelitis, polyneuro- and radiculopathy, rarely ischemic stroke and acute autoimmune inflammatory polyradiculoneuropathy (Guillain-Barre syndrome).

### Purpose of the Study

To identify priority approaches for the treatment of acute dorsalgia and spondylitis as manifestations of postcovid syndrome.

### Materials and Methods

The article presents clinical data on the treatment of dorsalgia and spondylitis in 10 patients (4 men and 6 women aged 19 to 46 years) who had Covid-19 infection.

All patients who had had COVID-19 infection complained of back pain, neck muscles and upper shoulder girdle, which deprived them of sleep, prevented them from finding a comfortable position in bed and required the use of painkillers and other means. Objective data made it possible to clearly identify soreness in the muscle groups of the arms, neck and back without disturbing their tone. Palpation of the spine revealed soreness of the spinous processes of the upper thoracic (5 patients) or cervical vertebrae with their slight inflammatory deformity. Enlarged lymph nodes could be palpated in 6 patients in the neck areas.

### Laboratory diagnostics

To confirm the fact of transferred COVID-19 (if it has not been laboratory verified earlier), it is recommended to determine antibodies to SARS-Cov-2. In reality, in order to assess the residual inflammatory changes, a general blood test and ESR were examined, a biochemical analysis was performed for ferritin, CRP, procalcitonin. To detect coagulation disorders, the indicators of D-dimer, fibrinogen, RFMC (concentrations of soluble fibrin-monomer complexes in the blood) are important. In all the cases presented, such results were not unambiguous.

### Results and Discussion

At the first stage of pharmacotherapy, anti-inflammatory drugs (pure paracetamol or efferalgan-upsa, therafly) had a weak therapeutic (although pathogenetic) effect. The appointment of hydroxychloroquine (plaquenil) does not stand up to critical attitude, since the drug

begins its anti-inflammatory and immunosuppressive effect after a period of accumulation of one month. Three approaches were used to treat inflammatory postcovid syndrome: first, nonsteroidal anti-inflammatory drugs were used (in 4 patients). Most often it is meloxicam (movalis, amelotex) at a dose of 15 mg - 7.5 mg once a day at lunch for 2-3 weeks. Celecoxib (celebrex, dipaxa) and nimesil at a dose of 0.1 - 0.2 three times a day (2 - 3 days) also actively affect the inflammatory processes, then once a day for the same period. In more complex cases, especially with arthropathies, cytostatics (methotrexate 10 mg per week) or leflunomide (arava) were used 20 mg (once in the first three days) and then 10 mg once every three days for 3 - 4 weeks. Secondly, these are short (in 3 patients) courses of glucocorticoid therapy. Prednisolone was used in the form of initial (two to three) intravenous infusions (90-60-30 mg) in saline solution with a further transition to tablet forms from 20 mg per day once after breakfast with a decrease of 5 mg every three days until complete withdrawal. The appointment of glucocorticoids requires the doctor to pay increased attention to the patient and exclude smoldering nonspecific and specific infections. The third variant of anti-inflammatory therapy in 5 patients included infusion ozone therapy based on the use of singlet oxygen with a high suppressive activity against pro-inflammatory agents. Bubbling of ozone in saline solution and further intravenous infusions lead to an increase in oxygenation of the patient's arterial blood by 5 - 10 percent and a decrease in procoagulation potential. At the final stage of treatment, you can add several sessions of small autohemoozonotherapy, which almost always leads to a rapid recovery.

Combined medications (magnesium + pyridoxine), glycine and valerian were prescribed to treat neurological symptoms. The appointment of multivitamins is not relevant, only the intake of vitamins C, D, zinc and selenium supplements is recommended. Regularly and from the first day of treatment, the dermatotropic agent dimexide (dimethyl sulfoxide), an anti-inflammatory drug for external use, which inactivates hydroxyl radicals, improves the course of metabolic processes in the focus of inflammation, should be applied. It also has a local anesthetic, analgesic and antimicrobial effect, has moderate fibrinolytic activity. Apply its place overnight in the form of a solution or gel. When applying a dimethyl sulfoxide solution to the skin, it is detected in the blood after 5 minutes, and the maximum concentration is detected after 4 - 6 hours with an almost unchanged level for 1.5 - 3 days. Physiotherapy procedures were used in 4 patients as part of comprehensive post-cortical dorsalgia rehabilitation programs: magnetotherapy, pulse currents, electrophoresis, wellness massage, acupuncture. At all stages of treatment, a full night's sleep and a decrease in the patient's psychotraumatic reactions were corrected.

### Conclusion

1) Acute dorsalgia and spondylitis are included in the structure of the postcovid syndrome; 2) the usual use of anti-inflammatory drugs is not enough for full effective treatment; 3) the presence of complaints of the patient on back pain, neck muscles and upper shoulder girdle after a viral infection requires a thorough examination and a differentiated approach in treatment and rehabilitation.

**Volume 5 Issue 11 November 2022**

**© All rights reserved by Katyukhin VN.**