

Differentiated Therapy of Post-Viral (Post-COVID) Arthralgias

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Introduction

Manifestations of post-viral (post-covid) complications with arthralgia have become a constant phenomenon in general therapeutic practice. WHO experts have made urgent changes to the international classification of diseases of the 10th and 11th revisions, adding to them the codes necessary to account for patients who have suffered from SARS-CoV-19 (Severe Acute Respiratory Syndrome Coronavirus-19) with a positive result of polymerase chain reaction or without serological confirmation [1]. In addition, additions were made to the ICD-10 in connection with the results of studies of the course and consequences of the COVID-19 disease. Added codes such as: U08.9 - personal history of COVID-19 unspecified and U09.9 - condition after COVID-19. At the same time, U08.9 indicates early episodes of coronavirus disease, both confirmed and potential, affecting human health. The code U09.9 allows you to link the patient's condition with a previously transferred COVID-19 disease. It is used for negative tests for coronavirus, although with a history of the disease. In addition, the ICD-10 includes codes describing conditions characteristic of multisystem inflammatory syndrome, both having a direct connection with COVID-19 and unspecified. The Ministry of Health of Russia has also brought such information to the regional and federal healthcare institutions of the controlling state bodies (FMBA, FTS and Rosstat). This makes it possible, in particular, to interpret post-corneal complications that continue after the acute phase of arthralgia and to work out empirically based differentiated approaches in the treatment of such patients, taking into account individual tolerability and effectiveness [2].

Purpose of the Study

The purpose of the study to determine the most effective approaches to the differentiated treatment of acute and prolonged arthralgia after a viral (COVID-19) infection.

Material, Methods and Results of the Study

22 patients (8 men and 13 women) aged 19 to 44 years with complications in the form of arthralgia after suffering from acute respiratory viral infection or clinically expressed COVID-19 were monitored. The duration of joint pain syndrome was from one week to two months. Such manifestations were for the first time in life and included arthropathies of the phalanges of the fingers (14 patients), feet (4), knee (8) and elbow joints (4). Serological data (PCR reactions) were negative in all cases, 12 patients with physical examination had residual manifestations of pulmonary lesions (after bronchiolitis, interstitial inflammation, pneumonia). The indicators of the general blood test did not reflect the current inflammation, C-reactive protein was elevated in 9 patients (on average 9.2 mmol/L), at the upper limit of the norm (5.0 mmol/L) - in 4 and in the rest - not exceeding the parameters of normal values. Rheumatoid factor was found to be positive only in 3 patients, which made it possible to verify nosologies in the entire group as inflammatory (post-viral) arthropathies. The therapeutic tactics of the doctor at the stage of active anti-inflammatory therapy was in the form of three approaches: in 4 patients

(who have no contraindications for the appointment of GCS), short courses of prednisone were used. A prerequisite was the exclusion of all smoldering or previously transmitted active infections. Every morning after meals, patients took 20 mg of the drug, with a decrease in the number of tablets by one every three days until complete withdrawal. This approach provided a pronounced therapeutic effect with a significant reduction in the manifestations of arthralgia, which allowed further switching to the second treatment regimen. The second subgroup (8 patients) from the very beginning used nonsteroidal anti-inflammatory drugs - amelotex (meloxicam, novalis) 15 - 7.5 mg once a day at lunch or naiz (100 mg) twice a day for 1 - 2 weeks. The main condition for prescribing nonsteroidal anti-inflammatory drugs was the absence of digestive complaints and good individual tolerance. Anti-inflammatory and analgesic effects were usually noted after 5 - 7 days of taking the drug, which allowed reducing the initial dosage. However, three patients were forced to additionally take gastric acid inhibitors to prevent gastralgia. After a significant decrease in all the phenomena of arthropathy (usually after 10 days, two weeks), all patients also completed treatment according to the second treatment regimen. The third subgroup (10 patients) received courses of infusion ozone therapy according to individual dosing regimens in the amount of 5 - 7 sessions conducted after one or two days. From the very beginning, these patients had a negative attitude to the above-mentioned medications and insisted on some new approach to treatment. To saturate 200 ml of saline solution, a domestic device "Medozons-BM" was used with the supply of pure oxygen from a gas oxygenator. Usually, a stepwise bubbling method was used, starting from 800 mcg/l and gradually saturating to a concentration of 1500 mcg/l, based on hemodynamic parameters. This approach provided a rapid (after two or three infusions) anti-inflammatory effect with small residual pain during joint movements. Naturally, all three applied therapeutic techniques gave a short-term anti-inflammatory effect, which was sufficient for only five, and they ended the treatment. In 17 patients, it was necessary to strengthen the achieved improvement by long-term use of effective anti-inflammatory medications. Ten people (4 men and 6 women) continued treatment in the form of taking hydroxychloroquine (plaquenil) 200 mg at night once a day and noted significant relief (after a period of full saturation) 20 - 40 days after the start of therapy. The period of effective course therapy until the complete absence of arthralgia in them was a little less than one year. Seven patients (3 men and 4 women) continued supportive anti-inflammatory therapy with the use of methotrexate-SZ. The initial dose was 7.5 mg once a week. Six weeks later, after a significant decrease in the manifestations of arthralgia, it was 5 mg. After the same period, it was reduced to the lowest possible (2.5 mg). In the absence of joint pain, the drug was completely cancelled.

Conclusion

1. The treatment of post-viral (post-ovoid) arthralgias requires a differentiated approach to initial and maintenance therapy.
2. Depending on the clinical course of acute arthralgia, it is advisable to use short courses of glucocorticosteroids, nonsteroidal anti-inflammatory drugs or infusion ozone therapy for treatment.
3. Hydroxychloroquine (plaquenil) or methotrexate should be used for the effective treatment of post-viral (post-ovoid) arthralgias.

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