

The Importance of Pre-existing Musculoskeletal Pain Conditions for Long-term Post-COVID-19



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Symptoms

Background and Aim

Evidence suggests that almost 75% of previously hospitalised coronavirus disease 2019 (COVID-19) survivors exhibit post-COVID symptom after the acute phase. No study has previously investigated the presence of long-term post-COVID symptoms considering the presence of pre-existing musculoskeletal pain as a risk factor. This study investigated the association between pre-existing musculoskeletal pain and the development of long-term (7 months) post-COVID-19 symptoms with a special focus on musculoskeletal post-COVID pain.

Methods

A case-control study including individuals hospitalised due to SARS-CoV-2 infection during the first wave of the pandemic (from February 20 to May 31, 2020) was conducted. Patients with a diagnosis of pre-existing musculoskeletal pain conditions and age- and sex-matched patients without pre-existing musculoskeletal pain conditions were scheduled for a telephone interview approx. 7 months after hospital discharge. Clinical and hospitalisation data were collected from hospital medical records. A predetermined list of post-COVID symptoms was systematically evaluated, but participants were invited to freely report any other symptom. Particular attention was paid to musculoskeletal post-COVID pain. Anxiety/depressive levels and sleep quality were likewise assessed.

Results

From a total of 1,200 hospitalised patients, 201 individuals with and 402 without pre-existing musculoskeletal pain were assessed at 7.4 months after hospital discharge. Individuals with pre-existing musculoskeletal pain conditions were more prone to exhibit generalized viral-induced myalgia at hospital admission (OR 1.68, 95%CI 1.19-2.37). No differences in the number of post-COVID symptoms (OR1.01, 95%CI 0.88-1.13) and the presence of persistent fatigue (OR 1.12, 95%CI 0.78-1.60), dyspnoea (OR 0.99, 95%CI 0.67-1.48), anxiety (OR 0.84, 95%CI 0.55-1.23), depression (OR 0.81, 95%CI 0.53-1.23) or poor sleep quality (OR 1.39 95%CI 0.98-1.96) between patients with and without pre-existing musculoskeletal pain conditions were observed. The presence of musculoskeletal post-COVID pain was not associated with the presence of pre-existing musculoskeletal pain conditions (OR1.29, 95%CI 0.92-1.18). Eighty percent (80%) of patients with a pre-existing musculoskeletal pain condition experienced worsening on intensity or frequency of their symptoms.

Conclusions

The presence of pre-existing musculoskeletal pain condition is not a risk factor associated with development of musculoskeletal post-COVID pain but COVID-19 can worsen pre-existing musculoskeletal pain condition at long-term in almost 85% of the patients.

Relevance to Patient Care

This is the first study providing evidence that the presence of pre-existing musculoskeletal pain is not a risk factor for the development of persistent post-COVID symptoms in previously hospitalized COVID-19 survivors.

