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Scientific Abstracts > Chronic Pain

# CHEST WALL PAIN ASSOCIATED WITH LONG COVID SYNDROME

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## Introduction

After an acute infection of COVID, up to 87% of patients develop one or more persistent symptoms. The emergence of symptoms 12 weeks beyond an acute COVID infection that cannot be explained by another condition, and persist two months after onset, is known as Long COVID. Chest wall pain is one of the most frequently experienced symptoms associated with Long COVID and is present in as many as 89% of patients who have the condition. However, relatively little is known about reliable management strategies for chronic chest pain relating to Long COVID currently. In the present study, the aim was to identify risk factors and treatment options and evaluate outcomes of chest wall pain related to long COVID.

## Materials and Methods

Through the Mayo enterprise, a chart review was conducted of patients with a recorded COVID infection between 01-01-2000 and 03-01-2023 and reported chest pain three-six months after the infection. Any patients that reported chest pain, tightness, or pressure 3-6 months beyond an acute infection that was not clearly specified as due to a complication other than COVID met inclusion criteria. Patients were excluded if they had a medical history of chronic chest pain. This study was determined to be exempt from the requirement of IRB approval.

## Results/Case Report

Of the 520 charts that were reviewed, 104 patients were identified as eligible for this study. Body mass index, age, race, vaccination status, COVID-related medications administered, status of care at the time of infection (inpatient/outpatient), pain management treatments, onset of chest pain, and external referrals were recorded and analyzed. Treatments prescribed for chest pain varied throughout the cohort, and no predominant therapy emerged. Of the 53 patients who reported to the ER for their chest pain, 6 were admitted for more than 24 hours on one or more visits. Twenty-nine patients were referred to a specialty within the pain medicine department.

## Discussion

This study highlights the need for future studies to focus on reliable treatments and pain management

strategies within this population. The heterogeneity of treatments prescribed to individuals included in this chart review reflected the lack of a set pathway for managing chest discomfort associated with Long COVID. This gap in treatments may be partially due to providers treating patients based on presumed etiology. Furthermore, while it was common for individuals to report chest discomfort for years, most patients experienced their pain intermittently, presenting a possible barrier to identifying and treating symptoms. Chest pain often went unreported at appointments if it was not being experienced in the moment, especially in people who have co-occurring conditions or symptoms. The tendency for patients to report to the emergency department because of their chronic chest pain may impede their quality of care and leads to increased utilization of emergency department services that may be better addressed on an outpatient basis. In contrast, despite evidence that patients may benefit from earlier referral to pain management as these symptoms tend to be long-lasting and have a significant impact on a patient's quality of life, only a subset of patients were referred to the pain medicine department. The current research identifies potential opportunities to recognize and specifically address chronic chest pain related to long COVID.

## References

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## Disclosures

No

## Tables / Images

