Long Covid-19 Syndrome: a systematic literature review

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INTRODUCTION

Since scientists detected SARS-CoV-2 (CoV-2) in December 2019 in Wuhan, China, it has caused a worldwide pandemic with high hospitalization and mortality rates. There are 351 million confirmed cases of CoV-2, and The World Health Organization stated that patients feel the impact of acute CoV-2 infection days or months after being considered covid-free. Sources have indicated long-term symptoms after recovery that are now known as Long Covid Syndrome (LCS).

METHODS

A systematic review using Cochrane methodology and PRISMA guidelines was conducted. The literature was searched in in MEDLINE, ScienceDirect, and ClinicalKey databases. The search terms included terms related to Long Covid Syndrome. The risk of bias was assessed with the RoBANS tool.

Eligibility criteria
- COVID-19 survivors with symptoms for >4 weeks **after** recovery
- age 18-65 y/o
- observational/cohort studies, cross-sectional and case-control studies
- English

CONCLUSIONS

Studies have shown the most common LCS symptoms were chronic fatigue, dyspnoea, pain, and neuropsychological revelations. Risk factors may include smoking, obesity, hospitalization in ICU, intubation, and comorbidities. Currently, there are no guidelines or diagnostic protocols to differentiate LCS from other pathologies.

AIM

To review the most common symptoms, risk factors, and diagnostic challenges of LCS.

RESULTS

The research strategy identified 5976 results. After a thorough assessment, 15 publications were included. The main symptoms were chronic fatigue (up to 68.0%), shortness of breath (59.5%), dry cough, chest, and musculoskeletal pain. Most patients reported neurological symptoms which included headaches (up to 68.0%), anosmia, partial olfactory dysfunction, and vertigo. LCS may manifest in psychiatric disorders: depression, anxiety, insomnia, and mood changes. Few studies determined possible risk factors, however, hospitalization in ICU, intubation, smoking, obesity, diabetes and hypertension are confirmed.

The challenge of LCS lies in how to diagnose it. Studies suggest approaching diagnosis by ruling out processes unrelated to CoV-2 infection and pre-existing pathologies. Further examination may be needed as per local guidelines.

Face-to-face → Anamnesis

Total blood count
Renal and liver markers
C-reactive protein
Thyroid function
Haemoglobin A1c, ferritin
Vitamin D, B12, Mg, folate,
Bone studies
← Physical exam

Symptoms presented in the studies	Moreno-Pérez	Huang	Kashif	Menges	Sykes	Gaber	Bell	Osikomaiy	Xiong	Carfi	Townsted	Carvalho-Schneider	Gonzalez-Hermosill	Graham
Sleep deprivation	26.0	21.1	35.1	44.0	22.1	9.8	17.7				45.4			
Headache	17.8	19.0	20.7	12.8	87.0						68.0			
Myalgias/body aches	19.6	35.1	51.5	26.0	8.8	87.0					40.8	55.0		
Chest pain	10.7	17.9	9.8	12.3							21.7			
Dyspnoea	34.4	25.0	59.7	40.0	37.5	9.5	43.4				50.8			
Fatigue	34.8	63.0	41.7	55.0	39.6	39.0	37.5	12.8	28.3	53.1	52.3	53.0		

Incidence of LCS symptoms in the studies

IHS Conference