

TITLE:

HEALTH-RELATED QUALITY OF LIFE, PERSISTENCE OF SYMPTOMS OF COVID-19 INTENSIVE CARE UNIT (ICU) PATIENTS AFTER BEING DISCHARGED FROM INTENSIVE CARE UNIT.

INVESTIGATORS & AFFILIATIONS:

¹Teoh Chun Teng, tengteoh@live.com Hospital Pulau Pinang, Penang.

²Noor Airini Ibrahim, airini@upm.edu.my Department of Anaesthesiology and Intensive Care, Faculty of Medicine and Health Sciences, UPM.



Teoh Chun Teng



Noor Airini Ibrahim

BACKGROUND

COVID-19 is a highly contagious respiratory disease caused by SARS-CoV-2 coronavirus. It has resulted in worldwide pandemic reaching about 700 million cases by December 2023. While many recovered from acute phase of infection, there is increasing data of long-term consequence worldwide. Many frequently reported symptoms are fatigue, shortness of breath, cough, myalgia, diarrhea, confusion, and anosmia. The aim of the study was to further evaluate the long-term impact of COVID-19 infection in post discharge period for the subgroup of patients which were admitted to ICU.

OBJECTIVE

This study was primarily aimed at assessing post-discharge health related quality of life (HRQoL) and persistence of symptoms of COVID-19 patients after being discharged from ICU. In addition, we also wanted to assess the relationship between severity of disease by clinical staging and HRQoL of these patients.

DESIGN

Observational, single centre, questionnaire-based study.

PARTICIPANTS

A total of 101 subjects participated in the study. All of them were admitted to ICU for severe Covid-19 infection and discharged alive following a period of treatment.

SETTING

ICU admission from January 2021 to Jun 2021.

EXPOSURE/VARIABLES

The exposure we aimed to monitor is the severity of illness, demographic data such as age, gender, education level, disease factor such as SOFA score. The outcomes of interest are the type of symptoms that persisted after discharged from ICU, ability to return to employment, health related quality of life.

SAMPLING METHODS

We utilized non-random sampling or convenience sampling in view of relatively difficult recruitment compared to general population.

STATISTICAL ANALYSIS

Data were analysed by using IBM SPSS statistics 28. Data regarding persistence of symptoms 12 months post discharge was depicted using comparison bar chart whereas data regarding health-related quality of life involving EQ-5D-5L was presented using radar chart. Sample size calculation through estimation of population with specific absolute precision adapted from Lwanga and Lemeshow 1991 with minimum sample size required is 96.

RESULTS

The most frequently reported symptoms that persisted after 1 year were fatigue (49.5%), shortness of breath (17.8%), cough(4%), myalgia(2%), diarrhoea(1%), confusion(1%), anosmia(1%). For the aspect of HRQoL, we found that there was significant difference regarding domain of mobility($P<0.00$), self-care($P=0.044$), return to usual activity($p=0.005$) as well as anxiety and depression ($P=0.005$) between different stages of COVID-19 infection patients.

DISCUSSION

This study supported the finding that many still suffer from residual effect of COVID-19 infection despite 1 year being discharged from critical care unit. In addition, many patients with more severe disease tend to have problem in mobility, self-care and return to usual activities as well as implicated by anxiety and depression. Further larger scale study with larger sample size is warranted to further evaluate data regarding follow up of symptoms and pulmonary rehabilitation plan.

CONCLUSIONS

This study demonstrated about half of subjects still have persistence of symptoms particularly pulmonary symptoms 1 year after being discharge from ICU. Some subjects with more severe disease tend to recover slower in domains of mobility, self-care, return to usual activity as well as anxiety and depression.

ACKNOWLEDGEMENTS

I would like to express my deepest gratitude and appreciation to Dato Dr Lim Chew Har, intensivist at Hospital Pulau Pinang, for providing me priceless opinion and guidance throughout data collection and completion of my dissertation. I would also like to thank to all staff at Medical Record Office of Hospital Pulau Penang that facilitated my process of data collection. Finally, thanks to my beloved wife Dr Chen Ming Jia for emotional support and companionship.

REFERENCES

- [1] Oran DP, Topol EJ et al, The Proportion of SARS-CoV-2 Infections That Are Asymptomatic : A Systematic Review, Ann Intern Med. 2021.
- [2] Zunyou Wu, Jennifer M McGoogan, Characteristics of and Important Lessons From the Coronavirus Disease 2019 (COVID-19) Outbreak in China: Summary of a Report of 72 314 Cases From the Chinese Center for Disease Control and Prevention, JAMA 2020 Apr 7;323(13):1239-1242.
- [3] Coronavirus Disease 2019 Case Surveillance – United State, January 22-May 30,2020, Centres for Disease Control and Prevention, June 2020.
- [4] Guan Wj, Ni ZY et al, Clinical Characteristics of Coronavirus Disease 2019 in China. N Engl J Med. 2020;382(18):1708. Epub 2020 Feb 28.
- [5] Yang X et al, Clinical course and outcomes of critically ill patients with SARS-COV-2 pneumonia in Wuhan,China: a single-centered, retrospective, observational study, Lancet. 2020
- [6] Malaysia Coronavirus Disease 2019(COVID-19) Situation Report November 2020, World Health Organization.
- [7] Angelo Carfi MD et al, Persistent Symptoms In Patients After Acute COVID-19, JAMA 200; 324(6):603-605.