

Risk Factors for Post-Acute Sequelae of COVID-19 among Recovered Patients in Southern Pakistan: a Prospective Multicentred Study

Ali QURESHI ¹, Syed Azhar SYED SULAIMAN ¹, Narendar KUMAR ^{1,2},
Muhammad Usman YASIN ³, & Nur Aizati Athirah Binti DAUD ¹ *

¹ *Discipline of Clinical Pharmacy, School of Pharmaceutical Sciences,
Universiti Sains Malaysia, Pulau Pinang, Malaysia*

² *Department of Pharmacy Practice, Faculty of Pharmacy,
University of Sindh, Jamshoro, Pakistan*

³ *Faculty of Pharmacy, University of Malaya, Kuala Lumpur, Malaysia*

SUMMARY. Patients who have recovered from COVID-19 may present with persistent symptoms for more than the normal duration in which they are suspected to develop post-acute sequelae of SARS-CoV-2 (PASC). This study was aimed to determine the risk factors with post-acute sequelae of SARS-CoV-2 (PASC) among recovered COVID-19 patients. This prospective, observational study was performed among COVID-19 patients discharged from the two large tertiary care hospitals in the Southern province of Pakistan. The study was conducted from July 2021 to September 2021. Relative risk (RR) and adjusted relative risk (aRR) for PASC were determined using binary logistic regression. A total of 229 participants were included with a mean age of 40.09 ± 12.10 years. The most prevalent symptoms reported were muscle pain (33.5%), cough (27%), fatigue (25.2%), and weakness (23.9%). The adjusted relative risk of post-acute sequelae COVID-19 symptoms was higher among elderly patients aged more than 50 years (aRR 23.99; 95% C.I, 9.7 – 59.6). COVID-19 recovered patients with history of diabetes, hypertension, cardiovascular diseases, and obesity have a high risk of developing PASC symptoms.

RESUMEN. Los pacientes que se han recuperado de COVID-19 pueden presentar síntomas persistentes durante más tiempo del normal durante el cual se sospecha que desarrollan secuelas posagudas del SARS-CoV-2 (PASC). Este estudio tuvo como objetivo determinar los factores de riesgo con secuelas posagudas del SARS-CoV-2 (PASC) entre pacientes recuperados de COVID-19. Este estudio observacional prospectivo se realizó entre pacientes con COVID-19 dados de alta de dos grandes hospitales de atención terciaria en la provincia sur de Pakistán. El estudio se realizó entre julio de 2021 y septiembre de 2021. El riesgo relativo (RR) y el riesgo relativo ajustado (aRR) de PASC se determinaron mediante regresión logística binaria. Se incluyeron un total de 229 participantes con una edad media de $40,09 \pm 12,10$ años. Los síntomas más prevalentes reportados fueron dolor muscular (33,5%), tos (27%), fatiga (25,2%) y debilidad (23,9%). El riesgo relativo ajustado de secuelas posagudas de síntomas de COVID-19 fue mayor entre los pacientes de edad avanzada mayores de 50 años (aRR 23,99; IC 95%, 9,7 – 59,6). Los pacientes recuperados de COVID-19 con antecedentes de diabetes, hipertensión, enfermedades cardiovasculares y obesidad tienen un alto riesgo de desarrollar síntomas de PASC.

KEYWORDS: post-acute, post COVID-19, patients, sequelae, symptoms,

* Author to whom correspondence should be addressed. *E-mail:* aizati@usm.my