

# Profil dan Faktor-Faktor yang Memengaruhi Manifestasi Gastrointestinal Pasca COVID-19 = Gastrointestinal Manifestations of Post-Acute Sequelae of COVID-19: Profile and Influencing Factors

Muhammad Firhat Idrus, author

Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=9999920528788&lokasi=lokal>

---

## Abstrak

**Latar Belakang:** Post-acute sequelae of COVID-19 (PASC) atau long covid merupakan kondisi dengan gejala jangka panjang yang dialami pasien yang telah pulih pasca infeksi COVID-19 yang bervariasi selama beberapa minggu hingga lebih dari 6 bulan. Kondisi ini dilaporkan terjadi pada 7-91% pasien dengan pasca infeksi akut SARS-CoV-2. Beberapa mekanisme diajukan yang berkontribusi terhadap patogenesis PASC gejala gastrointestinal diajukan di antaranya persistensi virus, disbiosis mikrobial, dan perubahan interaksi neuroimun. Saat ini pandemi COVID-19 sudah dinyatakan sebagai endemi di Indonesia dengan menurunnya jumlah pasien dan pelanggaran protokol kesehatan. Sehingga pada penelitian ini fokus terhadap gejala pasca COVID-19 khususnya gejala gastrointestinal (GI) dengan faktor-faktor yang memengaruhinya. **Background:** Post-acute sequelae of COVID-19 (PASC), also known as long COVID, is a condition characterized by long-term symptoms experienced by patients who have recovered from a COVID-19 infection, lasting for several weeks to over 6 months. This condition has been reported to occur in 7-91% of patients following acute SARS-CoV-2 infection. Several proposed mechanisms contribute to the pathogenesis of PASC gastrointestinal symptoms, including persistent viral presence, microbial dysbiosis, and altered neuroimmune interactions. Currently, the COVID-19 pandemic is declared as endemic in Indonesia with decreasing numbers of patients. Therefore, this study focuses on post-COVID-19 symptoms, specifically GI symptoms, and the factors influencing them.

**Objective:** To determine the clinical profile of post-COVID-19 gastrointestinal outcomes and the associated factors (age, gender, non-gastrointestinal comorbidities, vaccination status of COVID-19, severity of COVID-19, comorbidities of gastrointestinal diseases, history of COVID-19 complications, nasopharyngeal swab CT-value, neutrophil-to-lymphocyte ratio, SGOT, and SGPT).

**Methods:** This prospective cohort study included 134 subjects diagnosed with confirmed COVID-19 based on nasopharyngeal PCR swab, who received outpatient and inpatient care at RSUPN dr. Cipto Mangunkusumo from October 2022 to March 2023. Statistical analysis was performed using SPSS version 25, with a significance level of  $p < 0.05$ .

**Results:** Out of 134 study subjects, subjects experienced PASC gastrointestinal symptoms in the first month, and 70 subjects in the third month. The most common manifestations of PASC gastrointestinal symptoms in the first month were constipation and nausea/vomiting in 21 (15.7%) and 10 (7.5%) subjects, respectively, while nausea/vomiting was the most common symptom in the third month. Bivariate analysis revealed significant associations between non-gastrointestinal comorbidities ( $p=0.011$ ) and CT-value  $\geq 25$  ( $p=0.028$ ) as risk factors for PASC gastrointestinal symptoms in the first month, as well as comorbidities ( $p=0.022$ ) in the third month. Multivariate analysis found that non-gastrointestinal comorbidities had the most significant influence on PASC gastrointestinal symptoms in both the first and third months, with a relative risk (RR) of 1.608 times (95% CI 1.140 – 2.260;  $p=0.007$ ) and 2.089 times (95% CI 1.093 – 3.990;  $p=0.014$ ), respectively.

Conclusion: There is a significant association between non-gastrointestinal comorbidities and the occurrence of PASC gastrointestinal manifestations in the first and third months, as well as a CT-value of COVID-19 >25.0 and the occurrence of PASC gastrointestinal manifestations in the first month.

Tujuan: Mengetahui profil luaran klinis gastrointestinal pasca COVID-19 dan faktor-faktor yang memengaruhi (usia, jenis kelamin, status vaksinasi COVID-19, komorbiditas non-gastrointestinal, derajat COVID-19, komorbiditas penyakit gastrointestinal, riwayat komedikasi COVID-19, CT-value swab nasofaring, neutrophil-to-lymphocyte ratio, SGOT, dan SGPT)

Metode: Desain penelitian berupa studi kohort prospektif pada 134 subjek yang didiagnosis terkonfirmasi COVID-19 dari swab PCR nasofaring yang di rawat jalan dan rawat inap RSUPN dr. Cipto Mangunkusumo selama periode Oktober 2022 sampai dengan Maret 2023. Analisis statistik menggunakan SPSS versi 25, nilai  $p < 0.05$  menunjukkan kemaknaan secara statistik.

Hasil: Sebanyak 134 subjek penelitian, 64 subjek mengalami gejala gastrointestinal PASC pada bulan ke-1 dan 70 subjek pada bulan ke-3. Manifestasi gejala gastrointestinal PASC terbanyak pada bulan ke-1 yaitu konstipasi dan mual-muntah sebanyak 21 (15,7%) subjek dan mual-muntah 10 (7,5%) pada bulan ke-3. Pada analisis bivariat terdapat hubungan yang bermakna pada subjek dengan riwayat komorbiditas ( $p=0,011$ ) dan CT-value 25 ( $p=0,028$ ) sebagai faktor risiko gejala gastrointestinal PASC pada bulan ke-1 serta subjek dengan komorbiditas non-gastrointestinal ( $p=0,022$ ) pada bulan ke-3. Analisis multivariat menemukan riwayat komorbiditas non-gastrointestinal paling memengaruhi gejala gastrointestinal PASC pada bulan ke-1 dan ke-3 dengan relative risk (RR) 1,608 kali (IK 95% 1,140 – 2,260;  $p= 0,007$ ) dan 2,089 kali (IK 95% 1,093– 3,990;  $p = 0,014$ ).

Kesimpulan: Terdapat pengaruh yang signifikan antara riwayat komorbiditas non-gastrointestinal terhadap kejadian manifestasi gastrointestinal PASC bulan ke-1 dan ke-3 serta nilai CT-value COVID-19 >25,0 terhadap kejadian manifestasi gastrointestinal PASC pada bulan ke-1.

.....