

INTISARI

Latar Belakang: COVID-19 dapat disertai koinfeksi yang disebabkan oleh patogen lain baik virus, bakteri, maupun jamur. Prevalensi koinfeksi oleh virus respirasi pada pasien COVID-19 dan virus penyebabnya di Indonesia belum diketahui dengan jelas.

Tujuan: Untuk mengetahui proporsi koinfeksi virus respirasi pada pasien COVID-19 bergejala sedang hingga berat dan virus respirasi penyebabnya, serta dampaknya terhadap kondisi pasien.

Metode: Penelitian ini merupakan studi potong lintang deskriptif. Subyek merupakan pasien yang terkonfirmasi COVID-19 dengan sedang hingga berat yang dirawat inap di RS Akademik UGM. Deteksi koinfeksi virus respirasi dilakukan dengan pemeriksaan swab nasofaring menggunakan Biofire FilmArray Respiratory Panel 2.1 plus.

Hasil: Dari 90 sampel yang diperiksa terdapat 6 sampel yang terdeteksi positif koinfeksi virus respirasi. Virus yang dideteksi antara lain Influenza A H3 (1), Human Rhinovirus/Enterovirus (2), Adenovirus, dan Coronavirus NL63. Terdapat 1 sampel yang positif terdeteksi koinfeksi dengan 2 virus respirasi (Human Rhinovirus/Enterovirus dan Coronavirus NL63). 1 sampel terdeteksi negatif SARS-CoV-2.

Kesimpulan: Proporsi koinfeksi dengan virus respirasi pada pasien COVID-19 bergejala sedang hingga berat di RS Akademik UGM sebesar 6,7% (6/90). Virus respirasi yang menyebabkan koinfeksi pada pasien COVID-19 bergejala sedang hingga berat di RS Akademik UGM antara lain *human* Rhinovirus/Enterovirus, Coronavirus NL63, Adenovirus, dan Influenza A H3.

Kata kunci: SARS-CoV-2, COVID-19, koinfeksi virus respirasi, multiplex RT-PCR

ABSTRACT

Background: SARS-CoV-2 can cause respiratory illness in humans that can also be present concomitantly with other pathogen infections.

Objectives: To understand the proportion of respiratory virus co-infection in patients with moderate to severe COVID-19, the causing pathogens, and the outcome of COVID-19 patients with respiratory virus co-infection.

Methods: This research is a cross-sectional descriptive study. Nasopharyngeal swabs from patients confirmed to have moderate to severe COVID-19 infection hospitalized in UGM Academic Hospital were tested for respiratory virus with Biofire FilmArray Respiratory Panel 2.1 Plus. Clinical data were collected from patients' medical records and then analyzed.

Result: Among 90 samples that were tested, there were 6 samples detected positive for respiratory viruses along with SARS-CoV-2. Respiratory viruses that were found as co-infecting pathogens in COVID-19 patients were human Rhinovirus/Enterovirus, Coronavirus NL63, Adenovirus, and Influenza A H3. There was 1 sample that was detected positive for 2 respiratory viruses (Human Rhinovirus/Enterovirus and Coronavirus NL63). 1 sample was tested negative for SARS-CoV-2. There was no difference in the laboratory test characteristics in patients with respiratory virus co-infection.

Conclusion: The proportion of respiratory virus co-infection in COVID-19 patients with moderate to severe symptoms at the UGM Academic Hospital was 6.7% (6/90).

Keyword: SARS-CoV-2, COVID-19, viral co-infection, multiplex RT-PCR