Hubungan Hasil Biakan Bakteri Patogen Saluran Napas terhadap Luaran Pasien Pneumonia COVID-19 yang Dirawat di Ruang Isolasi Pinere Tahun 2021 = Association between Respiratory Tract Bacterial Culture and Outcome of COVID-19 Pneumonia Patients Treated in Pinere Isolation Ward in 2021

Muhammad Bimo Adi Wicaksono, author

Abstrak

Latar Belakang: Pada tanggal 12 Maret 2020, World Health Organization (WHO) mengumumkan penyakit Coronavirus Disease 2019 (COVID-19) sebagai pandemi yang disebabkan oleh virus Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2). Infeksi virus dapat menyebabkan kolonisasi organ yang terinfeksi akibat penurunan respon imun oleh patogen akibat penurunan respons imun serta masuknya bakteri patogen melalui akses yang diperantarai oleh mikroorganisme oportunis. Hingga saat ini telah banyak studi yang membahas COVID-19 dari aspek epidemiologi dan karakteristik klinis namun informasi terkait infeksi sekunder akibat bakteri pada COVID-19 masih terbatas.

Metode Penelitian: Penelitian ini menggunakan desain studi potong lintang dengan dengan menelusuri data rekam medis pasien yang memiliki riwayat perawatan pneumonia COVID-19 di ruang isolasi Pinere RSUP Persahabatan sejak 1 Januari 2021 - 31 Desember 2021. Total sampel pada penelitian ini adalah sebanyak 111 pasien.

Hasil Penelitian: Total pasien pneumonia COVID-19 yang dirawat di ruang isolasi Pinere selama tahun 2021 yaitu sebanyak 718 pasien. Pasien yang memenuhi kriteria inklusi dan eksklusi adalah sebanyak 111 pasien. Karakteristik pasien pneumonia COVID-19 didominasi oleh jenis kelamin laki-laki, median usia 53 tahun, lama rawat 11 hari, status gizi obesitas, belum divaksin, derajat keparahan sedang, penggunaan antivirus remdesivir, antibiotik levofloksasin, azitromisin dan kortikosteroid. Terdapat pertumbuhan bakteri pada 41,5% hasil biakan yang terdiri dari gram negatif (38,8%) dan gram positif (2,7%). Klebsiella pneumoniae merupakan bakteri gram positif terbanyak yang tumbuh, sedangkan Enterococcus faecalis merupakan satu-satunya gram positif yang tumbuh. Tidak terdapat hubungan antara hasil biakan patogen saluran napas terhadap luaran pasien pneumonia COVID-19 (nilai p=0,738). Derajat keparahan tidak berhubungan dengan hasil biakan, tetapi berhubungan dengan luaran pasien pneumonia COVID-19.

Kesimpulan: Tidak terdapat hubungan antara hasil biakan patogen saluran napas terhadap luaran pasien pneumonia COVID-19.

.....Background: World Health Organization (WHO) declared Coronavirus Disease 2019 (COVID-19) as a pandemic caused by the Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2) virus on March 12, 2020. Viral infections can cause colonization of infected organs due to decreased immune response and entry of pathogenic bacteria through access mediated by opportunistic microorganism. Until now, there have been many studies discussing COVID-19 from the aspect of epidemiology and clinical characteristics, but information regarding secondary infections caused by bacteria in COVID-19 is still limited.

Methods: The design of this study is cross-sectional by tracing the medical record data of patients who had a history of treatment for COVID-19 pneumonia in the Pinere isolation ward of Persahabatan General Hospital from January 1st 2021 to December 31st 2021. The total sample in this study was 111 patients.

Result: The total number of COVID-19 patients treated in the Pinere isolation room during 2021 is 718 patients. Patients who met the inclusion and exclusion criteria were 111 patients. The characteristics of COVID-19 patients were dominated by male, median age 53 years, length of stay 11 days obesity, not yet vaccinated, moderate severity, use of antiviral remdesivir, antibiotics levofloxacin, azithromycin and corticosteroid. There was bacterial growth in 41,5% of culture results consisting of gram negative (38,8%) and gram positive (2,7%). Klebsiella pneumoniae is the most gram positive bacteria that grows, while Enterococcus faecalis is the only gram positive that grows. There was no relationship between the results of respiratory tract cultures and the outcomes of COVID-19 patients (p value = 0.738). The severity of COVID-19 is not associated to culture results, but is associated to the patient's outcome.

Conclusion: There was no relationship between the results of respiratory tract cultures and the outcomes of COVID-19 patients.