

Faktor-faktor yang memengaruhi efektivitas intubasi endotrakeal pada pasien COVID-19 di RSUP Persahabatan Jakarta = Factors associated with effective endotracheal intubation in COVID-19 patients in National Respiratory Center, Persahabatan Hospital, Jakarta

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Abstrak

Latar Belakang: Pandemi COVID-19 telah menjadi tantangan besar bagi dunia kesehatan. Tenaga kesehatan merupakan populasi yang sangat rentan tertular dikarenakan tingginya intensitas dan frekuensi pajanan SARS-CoV-2. Risiko penularan meningkat apabila tenaga medis melakukan tindakan yang memicu aerosilisasi, salah satunya adalah intubasi endotrakeal karena tingginya viral load pada saluran napas. Sebanyak 3,2% pasien COVID-19 memerlukan tindakan intubasi endotrakeal dan ventilasi mekanis. Intubasi endotrakeal yang efektif pada pasien COVID-19 penting dilakukan untuk menurunkan mortalitas dan risiko penularan. Penelitian ini bertujuan untuk mengetahui faktor-faktor yang memengaruhi efektivitas intubasi endotrakeal pada pasien terkonfirmasi COVID-19 di RSUP Persahabatan.

Metode: Penelitian ini merupakan penelitian observasional yang menggunakan desain potong lintang yang dilakukan di IGD, ICU Rasmin Rasjid dan ICU PINERE RSUP Persahabatan pada bulan Juni 2021 – Juni 2022. Subjek penelitian ini adalah pasien terkonfirmasi COVID-19 yang dilakukan tindakan intubasi endotrakeal yang memenuhi kriteria inklusi dan eksklusi. Tindakan intubasi endotrakeal dinilai dari observasi rekaman CCTV. Selanjutnya karakteristik subjek, karakteristik intubasi endotrakeal dan faktor-faktor yang memengaruhi intubasi endotrakeal dievaluasi.

Hasil: Pada penelitian ini didapatkan 59 subjek penelitian. Proporsi intubasi endotrakeal efektif pada pasien COVID-19 sebesar 20,34%. Median lama waktu tindakan intubasi endotrakeal adalah 38 (19-189) detik. Sebanyak 32 (54,24%) tindakan intubasi endotrakeal dilakukan oleh spesialis anestesi dan 27 (45,76%) oleh PPDS Pulmonologi dan Kedokteran Respirasi. Hasil analisis bivariat didapatkan hasil bermakna secara statistik pada variabel penyakit kardiovaskular+DM (OR 0,24 (IK 95% 0,06-0,91), $p=0,028$) dan variabel operator (OR 0,07 (IK 95% 0,01-0,62), $p=0,004$). Hasil analisis multivariat menunjukkan hasil bermakna secara statistik hanya pada variabel operator (adjusted OR 0,06 (IK 95% 0,01-0,60), $p=0,016$).

Kesimpulan: Terdapat hubungan penyakit kardiovaskular+DM dan operator terhadap intubasi endotrakeal efektif pada pasien COVID-19 di RSUP Persahabatan.

.....Background: The COVID-19 pandemic has become a major challenge for the healthcare system. Healthcare workers are vulnerable population of COVID-19 transmission due to high intensity and frequency of exposure to SARS-CoV-2. The risk of transmission increases in aerosolization procedure such as endotracheal intubation because of the high viral load in the airways. Approximately 3.2% of COVID-19 patients require endotracheal intubation and mechanical ventilation. Effective endotracheal intubation in COVID-19 patients is important parameter to reduce mortality and the risk of transmission to healthcare workers. This study aims to determine the factors that influence the effectiveness of endotracheal intubation in patients with COVID-19 in National Respiratory Center, Persahabatan Hospital.

Methods: This study is an observational study using a cross-sectional design which was carried out in the emergency department, ICU Rasmin Rasjid and ICU PINERE of National Respiratory Center, Persahabatan

Hospital in June 2021 – June 2022. The subjects of this study were COVID-19 patients who underwent endotracheal intubation who met the criteria inclusion and exclusion. The endotracheal intubation procedure was assessed from the observation of CCTV recordings. The characteristics of the subject, the characteristics of endotracheal intubation and the factors that influence endotracheal intubation were evaluated.

Results: In this study, there were 59 subjects. The proportion of effective endotracheal intubation in COVID-19 patients was 20.34%. The median length of time for endotracheal intubation was 38 (19-189) seconds. Among the subjects, 32 (54.24%) endotracheal intubation were performed by anesthesiologists and 27 (45.76%) were performed by Pulmonology and Respiratory Medicine residents. The results of the bivariate analysis showed statistically significant results on the cardiovascular disease + DM comorbid (OR 0.24 (95% CI 0.06-0.91), $p=0.028$) and operator (OR 0.07 (95% CI 0.01-0.62), $p=0.04$). The results of the multivariate analysis showed statistically significant results only for operator (adjusted OR 0.06 (95% CI 0.01-0.60), $p=0.016$).

Conclusion: There is relationship of cardiovascular disease + DM comorbid and operator with effective endotracheal intubation in COVID-19 patients at National Respiratory Center, Persahabatan Hospital.