

## INTISARI

Per September 2022, telah tercatat sebanyak 6 juta lebih kasus terkonfirmasi positif COVID-19 di Indonesia. Terapi Plasma Konvalesen (TPK) menjadi salah satu pilihan terapi yang sudah mulai digunakan sejak tahun 2020 untuk terapi pasien COVID-19. Pada penelitian terdahulu, TPK telah terbukti memberikan manfaat pada penyakit *Middle East Respiratory Syndrome* (MERS), influenza A (H1N1), dan *Severe Acute Respiratory Syndrome* (SARS). Sebagai terapi yang baru untuk penyakit yang baru, perlu dilakukan kajian keamanan terhadap penggunaannya. Penelitian yang mengevaluasi keamanan TPK di Indonesia masih sangat sedikit. Penelitian ini bertujuan untuk mengetahui *adverse event* yang terjadi setelah pemberian TPK dan faktor-faktor yang berhubungan dengan kejadian tersebut pada pasien COVID-19 rawat inap di Rumah Sakit Akademik Universitas Gadjah Mada.

Penelitian ini berupa penelitian non-eksperimental kuantitatif menggunakan pendekatan *cross-sectional* serta pengambilan data sekunder secara retrospektif. Data yang digunakan adalah data rekam medis lengkap pasien laki-laki dan perempuan berusia di atas 18 tahun, mendapatkan TPK, dan terkonfirmasi COVID-19 yang dirawat inap periode bulan Januari hingga Agustus 2021. Data berupa *adverse event* yang terjadi dalam waktu 24 jam setelah pemberian TPK, baik gambaran klinis maupun hasil laboratorium. Data dianalisis menggunakan uji *chi-square* pada taraf kepercayaan 95% ( $P < 0,05$ ).

Pada penelitian ini, didapatkan sebanyak 65 pasien. Hasil penelitian menunjukkan terdapat *adverse event* yang muncul setelah pemberian TPK pada 17 pasien (26,1%), antara lain penurunan  $PaO_2/FiO_2$  (4,6%), penurunan  $SpO_2$  (15,4%), penurunan tekanan darah (4,6%), kenaikan tekanan darah (6,1%), menggigil saat transfusi (1,5%), dan *dyspnea*, nyeri dada disertai *diffuse* dan infiltrat bilateral pada radiografi dada (1,5%). Faktor usia, jenis kelamin, komorbid, dan derajat keparahan secara umum tidak berhubungan secara signifikan dengan *adverse event* setelah pemberian TPK ( $p > 0,05$ ). Pasien dengan komorbid ginjal seluruhnya mengalami *adverse event* ( $n=4$ ), namun signifikansi hubungan komorbid ginjal dengan *adverse event* tidak dapat ditentukan. Berdasarkan penelitian ini, disarankan pemberian TPK pada pasien dengan komorbid gangguan ginjal diberikan perhatian khusus. Perlu penelitian lebih lanjut pada populasi pasien COVID-19 dengan komorbid gangguan ginjal.

**Kata Kunci :** Terapi Plasma Konvalesen, COVID-19, *Adverse Event*

## ABSTRACT

*As of September 2022, there were more than 6 million confirmed cases positive for COVID-19 in Indonesia. Convalescent Plasma Therapy (CPT) is an alternative potential that has been used since 2020 for COVID-19 patient therapy. In previous studies, CPT has been shown to provide benefits in Middle East Respiratory Syndrome (MERS), influenza A (H1N1), and Severe Acute Respiratory Syndrome (SARS). As a new therapy for a new disease, it is necessary to study its use. Research evaluating the safety of CPT in Indonesia is still very little. This study aims to determine adverse events that occur after the administration of CPT and the factors that related to this incident in hospitalized COVID-19 patients in Gadjah Mada University Academic Hospital.*

*This research is quantitative non-experimental research using a cross-sectional approach and retrospective collection of secondary data. The data used are complete medical record data of male and female patients aged over 18 years, getting CPT, and confirmed to be hospitalized for COVID-19 for the period January to August 2021, in the form of adverse events that occurred within 24 hours after administration of CPT, both clinical and laboratory results. Data were analyzed using Chi-Square test at 95% confidence level ( $P < 0.05$ ).*

*In this study, there were 65 patients. The results showed that there were adverse events that occurred after the administration of CPT in 17 patients (26,1%), including a decrease in PaO<sub>2</sub>/FiO<sub>2</sub> (4.6%), a decrease in SpO<sub>2</sub> (15.4%), a decrease in blood pressure (4.6%), an increase in blood pressure (6.1%), shivering during transfusion (1.5%), and dyspnea, diffuse chest pain and bilateral infiltrates on chest radiography (1.5%). Age, gender, comorbid factors in general, and severity degree were not significantly related to adverse events after the administration of CPT ( $p > 0.05$ ). However, all patients with renal comorbidities had adverse events ( $n=4$ ), but the significance of the association between renal comorbidities and adverse events could not be determined. Based on this study, it is suggested that the administration of CPT in patients with comorbid renal impairment needs special attention. Further research is needed in the population of COVID-19 patients with comorbid renal impairment.*

**Key Words :** Convalescent Plasma Therapy, COVID-19, Adverse Event