INTISARI

Latar Belakang: *Coronavirus Disease 19* (COVID-19) merupakan permasalahan kesehatan global yang memengaruhi seluruh umat manusia termasuk ibu hamil. Hingga 23 Mei 2024 telah terjadi 775.431.269 kasus terkonfirmasi COVID-19. Pada ibu hamil, infeksi COVID-19 dapat berpotensi menyebabkan infeksi berat hingga perawatan di ruang intensif maupun persalinan prematur. Hingga saat ini belum ada antivirus yang dinilai efektif dalam menangani COVID-19 sehingga vaksinasi menjadi salah satu upaya untuk mencegah COVID-19.

Tujuan: Untuk mengetahui faktor-faktor yang memengaruhi kadar titer antibodi pada perempuan hamil

Material dan Metode: Penelitian ini merupakan penelitian analitik observasional dengan desain *cross sectional* yang dilakukan di RSUP Dr. Sardjito Yogyakarta pada periode Juni 2023 hingga April 2024 yang melibatkan ibu hamil yang tidak terkena COVID-19. Usia ibu, indeks massa tubuh (IMT), jenis vaksin, usia kehamilan, interval pengukuran, serta kadar titer IgG dinilai. Analisis bivariat dilakukan menggunakan *chi-square* untuk data kategorik dan uji T untuk data numerik pada 2 kelompok, serta one-way ANOVA pada lebih dari 2 kelompok. Analisis multivariat dilakukan menggunakan Ancova.

Hasil: Ditemukan bahwa kadar titer antibodi COVID-19 pada kelompok yang lengkap vaksin akan lebih tinggi dengan nilai 602,70 ± 224,87 U/mL dibandingkan 485,21 ± 125,64 U/mL pada kelompok vaksin tidak lengkap (p=0,034). Selanjutnya jenis vaksin (P=0,001) dan interval vaksin (P=0,000) berpengaruh secara statistik terhadap kadar titer IgG COVID-19. Analisis multivariat menunjukkan bahwa jenis vaksin memberikan *effect size* dan dengan besaran nilai *effect size (partial eta square*) terbesar yakni 0,726 (p=0,007) terbesar untuk terhadap titer IgG.

Kesimpulan: Vaksin yang lengkap, interval pengukuran kadar IgG yang lebih pendek, serta jenis vaksin merupakan faktor yang berpengaruh secara statistik terhadap kadar IgG COVID-19 yang lebih tinggi

Kata Kunci: COVID-19, vaksin, ibu hamil, jenis vaksin, interval vaksin

ABSTRACT

Background: *Coronavirus Disease 19 (COVID-19) was a global health crisis that affected all of humanity, including pregnant women. As of May 23, 2024, there had been 775,431,269 confirmed cases of COVID-19. In pregnant women, COVID-19 infection could potentially cause severe complications requiring intensive care and premature delivery. Until now, there has been no antiviral treatment considered effective in dealing with COVID-19, so vaccination was one of the primary efforts to prevent the disease.*

Objective: *The objective was to determine the factors that affected antibody titer levels in pregnant women.*

Materials and Methods: *This study was an observational analytical study with a cross-sectional design conducted at Dr. Sardjito Yogyakarta Hospital from June 2023 to April 2024, involving pregnant women who had not yet been diagnosed with COVID-19. The mother's age, body mass index (BMI), vaccine type, gestational age, measurement interval, and IgG titer levels were assessed. Bivariate analysis was carried out using the chi-square test for categorical data and the T-test for numerical data in 2 groups, as well as one-way ANOVA for more than 2 groups. Multivariate analysis was carried out using ANCOVA.*

Results: *It was found that the level of COVID-19 antibody titers in the complete vaccine group was higher, with a value of 602.70 ± 224.87 U/mL compared to 485.21 ± 125.64 U/mL in the incomplete vaccine group (p=0.034). Furthermore, the type of vaccine (P=0.001) and vaccine interval (P=0.000) had significant impacts on the level of COVID-19 IgG titer. Multivariate analysis showed that the type of vaccine had the largest effect size (partial eta square) value of 0.726 (p=0.007) for IgG titers.*

Conclusions: *Complete vaccination, shorter IgG measurement intervals, and vaccine type were statistically significant factors associated with higher COVID-19 IgG levels.*

Keywords: *COVID-19, vaccines, pregnant women, types of vaccines, vaccine intervals*