

HUBUNGAN IMUNOGLOBULIN M (IgM) DENGAN HASIL POLYMERASE CHAIN REACTION (PCR) PADA PASIEN SUSPECT COVID-19 DI PUSKESMAS GAMPING I

Rini Adelia Pratiwi¹, Arif Adi Setiawan²

Email: riniadelia999@gmail.com

INTISARI

Latar Belakang: Immunoglobulin M adalah antibodi pertama yang bersirkulasi terhadap pemaparan awal antigen. Hal ini secara diagnostik bermanfaat karena kehadiran IgM umumnya mengindikasikan adanya infeksi baru oleh patogen yang menyebabkan pembentukannya. IgM sangat efisien untuk reaksi aglutinasi dan reaksi sitolitik, dan karenanya timbul sangat cepat setelah infeksi dan tetap tinggal dalam darah, maka IgM merupakan daya tahan tubuh penting pada infeksi bakteri maupun parasit

Tujuan Penelitian: Mendapatkan hasil hubungan hasil rapid test IgM dengan hasil laboratorium Polymerase Chain Reaction (PCR) pada pasien suspect COVID-19 di Puskesmas Gamping I, Sleman, Yogyakarta.

Metode Penelitian: Penelitian kuantitatif dengan desain korelasi menggunakan pendekatan case-control study. Pemilihan sampel menggunakan purposive sampling sebanyak 96 responden. Variabel yang diteliti adalah Ig-M dan tes PCR. Uji analisa statistik menggunakan univariate dan bivariate. Instrumen yang digunakan adalah hasil tes PCR.

Hasil Penelitian: Berdasarkan hasil penelitian didapatkan hasil bahwa pada 96 orang terdapat 49 laki-laki memiliki hasil tes PCR positif. Berdasarkan usia terdapat 33 orang dengan usia 19-30 tahun dan 45-59 tahun memiliki hasil ter PCR positif. bahwa hasil RDT Ig-M beresiko 4,000 kali lebih besar untuk mengetahui hasil PCR. Terdapat hubungan antara hasil RDT Ig-M dan juga hasil PCR hal tersebut dibuktikan dengan nilai p-value 0,004 (p-value < 0,05).

Kesimpulan: Hasil penelitian ini didapatkan bahwa terdapat hubungan antara hasil RDT Ig-M dengan hasil tes PCR. Hasil RDT Ig-M memiliki resiko kemungkinan 4,000 kali mendapatkan hasil PCR positif daripada hasil Ig-M non reaktif.

Kata Kunci: Ig-M, PCR, COVID-19

RELATIONSHIP OF IMMUNOGLOBULIN M (IgM) WITH POLYMERASE CHAIN REACTION (PCR) RESULTS IN SUSPECT COVID-19 PATIENTS IN GAMPING I Health Center

Rini Adelia Pratiwi¹, Arif Adi Setiawan²

Email: riniadelia999@gmail.com

ABSTRACT

Background: Immunoglobulin M is the first circulating antibody against initial antigen exposure. This is diagnostically useful because the presence of IgM generally indicates a recent infection by the pathogen that caused its formation. IgM is very efficient for agglutination reactions and cytolytic reactions, and therefore appears very quickly after infection and remains in the blood, so IgM is an important defense against bacterial and parasitic infections.

Research Objectives: To obtain the results of the relationship between the results of the IgM rapid test and the results of the Polymerase Chain Reaction (PCR) laboratory in patients suspected of COVID-19 at the Gamping I Health Center, Sleman, Yogyakarta.

Research Methods: Quantitative research with correlation design using a case-control study approach. The sample selection using purposive sampling as many as 96 respondents. The variables studied were Ig-M and PCR tests. Statistical analysis test using univariate and bivariate. The instrument used is the results of the PCR test.

Research Results: Based on the results of the study, it was found that in 96 people there were 49 men who had positive PCR test results. Based on age, 33 people aged 19-30 years and 45-59 years had positive PCR results. that the results of RDT Ig-M risk 4,000 times greater to know the results of PCR. There is a relationship between the Ig-M RDT results and the PCR results, this is evidenced by the p-value of 0.004 (p-value <0.05).

Conclusion: The results of this study showed that there was a relationship between the results of the Ig-M RDT and the results of the PCR test. Ig-M RDT results have a 4,000 times risk of getting a positive PCR result than non-reactive Ig-M results.

Keywords: Ig-M, PCR, COVID-19