

ABSTRAK

Marshanda Pratiwi Miftahurrahma

HUBUNGAN RASIO MONOSIT–LIMFOSIT (MLR) TERHADAP TES WIDAL DAN *RAPID TEST* IgM ANTI-*SALMONELLA* PADA PASIEN SUSPEK DEMAM TIFOID

xvi + 44 Halaman + 7 Tabel + 9 Lampiran

Demam tifoid patologi akibat infeksi akibat *Salmonella typhi* yang masih menjadi masalah kesehatan di Indonesia, terutama pada mukim dengan pemurnian yang kurang baik. Penegakan diagnosis demam tifoid umumnya dilakukan memintasi telaah serologi seperti widal dan rapid test IgM anti-*Salmonella*. Kedua pemeriksaan tersebut masih sering digunakan, namun memiliki keterbatasan sensiltas dan spesifisitas. Rasio monosit-limfosit (*Monocyte-Lymphocyte Ratio* / MLR) merupakan parameter hematologi yang berpotensi menjadi indikator pendukung diagnosis demam tifoid karena mencerminkan respons imun bawaan dan adaptif. Tujuan penelitian yaitu untuk menganalisis perselangan rasio monosit-limfosit (MLR) dengan tes widal dan rapid test IgM anti-*Salmonella* pada penderita suspek demam tifoid. Pengkaji ini memanfaatkan desain observasional berbasis *cross-sectional*. Sampel telaah eksperimen berkuantitas 29 pasien suspek demam tifoid berobjek di Klinik Ultra Medica Tulungagung yang dipilih seacara *purposive sampling* bersumber pada kualifikasi yang telah ditentukan. Pemeriksaan MLR (*Monocyte-Lymphocyte Ratio*) menggunakan *hematology analyzer*, tes widal metode slide, dan rapid test IgM anti-*Salmonella* menggunakan metode imunokromatografi. validasi penelitian nilai MLR berada pada kategori rendah 79,3%, kategori sedang 17,2% dan kategori tinggi 3,4%. validasi rapid test IgM anti-*Salmonella* menunjukkan 37,9% positif dan 62,1% destruktif. validasi tes widal terdapat pada titer 1/80 sebesar 79,3% dan titer 1/160 sebesar 13,8%. Analisa statistik menggunakan uji korelasi *Rank Spearman*. *Impact* uji interelasi selang MLR pada widal dan rapid test IgM anti-*Salmonella* menunjukkan destruktif kaitan yang substansial karena diperoleh nilai $p > 0,05$. Serupa dari itu, tidak terdapat korelasi yang substansial selang rasio monosit-limfosit (MLR) dengan validasi tes widal maupun rapid test IgM anti-*Salmonella* pada pasien suspek demam tifoid.

Kata kunci: Rasio monosit-limfosit (MLR), tes widal, IgM anti-*Salmonella*, demam tifoid

Daftar bacaan: 8 Buku dan 43 Jurnal (2017-2026)

ABSTRACT

Marshanda Pratiwi Miftahurrahma

THE RELATIONSHIP BETWEEN THE MONOCYTE-LYMPHOCYTE RATIO (MLR) AND THE WIDAL TEST AND RAPID IgM ANTI-SALMONELLA TEST IN PATIENTS SUSPECTED OF HAVING TYPHOID FEVER

xvi + 44 pages + 7 tables + 9 appendices

*Typhoid fever, a disease caused by infection with *Salmonella typhi*, remains a public health problem in Indonesia, particularly in communities with poor sanitation. The diagnosis of typhoid fever is generally confirmed through serological tests such as the Widal test and the anti-Salmonella IgM rapid test. Both tests are still frequently used, but they have limitations in terms of sensitivity and specificity. The monocyte-lymphocyte ratio (Monocyte-Lymphocyte Ratio / MLR) is a hematological parameter that has the potential to serve as a supportive indicator for the diagnosis of typhoid fever because it reflects both innate and adaptive immune responses. The objective of this study was to analyze the relationship between the monocyte-lymphocyte ratio (MLR) and the Widal test and anti-Salmonella IgM rapid test in patients with suspected typhoid fever. This study utilized a cross-sectional observational design. The study sample consisted of 29 patients with suspected typhoid fever treated at the Ultra Medica Clinic in Tulungagung, who were selected using purposive sampling based on predetermined criteria. The MLR (Monocyte-Lymphocyte Ratio) was measured using a hematology analyzer, the Widal test was performed using the slide method, and the anti-Salmonella IgM rapid test utilized the immunochromatography method. The study results showed that MLR values fell into the low category (79.3%), the moderate category (17.2%), and the high category (3.4%). The results of the anti-Salmonella IgM rapid test showed 37.9% positive and 62.1% negative. The Widal test results showed a 1/80 titer in 79.3% of cases and a 1/160 titer in 13.8% of cases. Statistical analysis utilized the Spearman's rank correlation test. Impact: The analysis of the relationship between the monocyte-to-lymphocyte ratio (MLR) and the Widal test and anti-Salmonella IgM rapid test results showed a significant negative correlation, as indicated by a p -value >0.05 . Similarly, there was no significant correlation between the monocyte-to-lymphocyte ratio (MLR) and the results of the Widal test or the anti-Salmonella IgM rapid test in patients with suspected typhoid fever.*

Keywords: Monocyte-to-lymphocyte ratio (MLR), Widal test, anti-Salmonella IgM, typhoid fever

References : 8 books and 43 Journals (2017-2024)