

ABSTRACT

Typhoid fever is a disease caused by infection with *Salmonella typhi* bacteria. Its spread through contaminated food or water. After *Salmonella typhi* bacteria enter the body through food or drink, the bacteria will multiply and spread into the bloodstream. Clinical symptoms in typhoid fever vary greatly. Generally, the clinical symptoms that arise cause this disease to be difficult to diagnose so that laboratory examinations are needed, one of which is widal examination and immunochromatographic examination. This study aims to determine the difference between widal test and immunochromatographic test in the diagnosis of typhoid fever.

This study is a comparative analytical descriptive study with a cross-sectional approach, which was carried out in March 2022 on 23 patients with a diagnosis of typhoid fever at dr. Sayidiman Magetan Hospital using test materials in the form of venous blood. Examinations carried out on the patient's blood are widal tests and immunochromatographic tests.

The results showed that in the widal agglutinin O test negative titer as many as 10 (43.48%) patients, titer 1/80 as many as 7 (30.43%) patients, titer 1/160 as many as 4 (17.39%) patients, and titer 1/320 as many as 2 (8.7%) patients, in agglutinin H with a negative titer as many as 8 (34.78%) patients, titer 1/80 as many as 13 (56.52%) patients, and titer 1/320 as many as (8.7%) patients. In the immunochromatographic test results, negative IgM and positive IgG were obtained as many as 1 (4.35%) patient, and negative IgM negative IgG as many as 22 (95.65%) patients. Based on statistical tests using the Fisher Exact test, it shows a significant value of > 0.05 , so it can be concluded that there is no difference between the widal test and the immunochromatographic test in the diagnosis of typhoid fever.

Keywords : Typhoid Fever, Widal Test, Immunochromatographic Test

ABSTRAK

Demam tifoid merupakan suatu penyakit yang disebabkan oleh infeksi bakteri *Salmonella typhi*. Penyebarannya melalui makanan atau air yang terkontaminasi. Setelah bakteri *Salmonella typhi* masuk ke dalam tubuh melalui makanan atau minuman, bakteri akan berkembang biak dan menyebar ke dalam aliran darah. Gejala klinis pada demam tifoid sangat bervariasi. Umumnya gejala klinis yang timbul menyebabkan penyakit ini sulit didiagnosis sehingga diperlukan adanya pemeriksaan laboratorium salah satunya pemeriksaan widal dan imunokromatografi. Penelitian ini bertujuan untuk mengetahui perbedaan uji widal dan tes imunokromatografi dalam diagnosis demam tifoid.

Penelitian ini merupakan penelitian deskriptif analitik komparatif dengan pendekatan *cross sectional*, yang dilakukan pada bulan Maret 2022 pada 23 pasien dengan diagnosis demam tifoid di RSUD dr. Sayidiman Magetan menggunakan bahan uji berupa darah vena. Pemeriksaan yang dilakukan pada darah pasien yaitu uji widal metode slide dan deteksi antibodi IgM dan IgG metode imunokromatografi.

Hasil penelitian menunjukkan pada uji widal aglutinin O titer negatif sebanyak 10 (43,48%) pasien, titer 1/80 sebanyak 7 (30,43%) pasien, titer 1/160 sebanyak 4 (17,39%) pasien, serta titer 1/320 sebanyak 2 (8,7%) pasien, pada aglutinin H dengan titer negatif sebanyak 8 (34,78%) pasien, titer 1/80 sebanyak 13 (56,52%) pasien, dan titer 1/320 sebanyak (8,7%) pasien. Pada hasil tes imunokromatografi didapatkan IgM negatif dan IgG positif sebanyak 1 (4,35%) pasien, serta IgM negatif IgG negatif sebanyak 22 (95,65%) pasien. Berdasarkan uji statistik menggunakan Uji *Exact Fisher* menunjukkan nilai signifikan $> 0,05$, sehingga dapat disimpulkan bahwa tidak terdapat perbedaan uji widal dan tes imunokromatografi dalam diagnosis demam tifoid.

Kata Kunci : Demam Tifoid, Uji Widal, Tes Imunokromatografi