

## ABSTRAK

Demam Tifoid disebut sebagai salah satu penyakit endemik yang disebabkan oleh perkembangbiakan mikroorganisme *Salmonella typhi*. Bakteri *Salmonella typhi* menyerang saluran pencernaan kemudian akan menginfeksi dan bermultiplikasi dalam sel fagositik mononuklear kemudian akan dilepaskan ke aliran darah. *Salmonella typhi* akan menghasilkan endotoksin yang dapat mempengaruhi nilai indeks eritrosit dan jumlah sel granulosit. Penelitian ini bertujuan untuk menganalisa korelasi antara nilai indeks eritrosit dan jumlah sel granulosit pada pasien demam tifoid di RSUD Haji Surabaya. Jenis penelitian ini adalah penelitian *observasional analitik* dengan desain *cross sectional* dan menggunakan teknik sampling secara *saturation sampling* yang merupakan teknik pengambilan sampel *non random sampling*. Sampel didapatkan 24 pasien positif demam tifoid dengan jumlah 14 orang perempuan dan 10 orang laki – laki. Didapatkan hasil dari penelitian ini adalah hasil nilai indeks eritrosit mendapatkan nilai MCV rendah sebanyak 13 orang (54%), MCV normal sebanyak 11 orang (46%), nilai MCH rendah sebanyak 16 orang (67%), MCH normal sebanyak 8 orang (33%), nilai hasil MCHC rendah sejumlah 3 orang (13%), MCHC normal sebanyak 21 (87%). Pada hasil jumlah sel granulosit mendapatkan jumlah sel eosinofil normal sebanyak 24 orang (100%), neutrofil rendah sebanyak 6 orang (25%), neutrofil normal sebanyak 11 orang (46%), neutrofil tinggi sebanyak 2 orang (29%), hasil jumlah sel basofil normal sebanyak 24 orang (100%). Berdasarkan hasil uji korelasi yang menggunakan uji korelasi Spearman didapatkan hasil tidak terdapat hubungan yang signifikan antara nilai indeks eritrosit dan jumlah sel granulosit pada pasien demam tifoid di RSUD Haji Surabaya.

**Kata kunci :** Demam Tifoid, Nilai Indeks Eritrosit, Jumlah Sel Granulosit.

## ABSTRACT

*Typhoid fever is said to be an endemic disease caused by the proliferation of the microorganism Salmonella typhi. Salmonella typhi bacteria attack the digestive tract and then infect and multiply in mononuclear phagocytic cells and then be released into the bloodstream. Salmonella typhi will produce endotoxin which can affect the erythrocyte index value and the number of granulocyte cells. This study aims to analyze the correlation between the erythrocyte index value and the number of granulocyte cells in typhoid fever patients at RSUD Haji Surabaya. This type of research is analytical observational research with a cross-sectional design and uses a saturation sampling technique, which is a non-random sampling technique. In the sample, 24 patients were positive for typhoid fever, with 14 women and 10 men. The results obtained from this study were that the erythrocyte index values obtained low MCV values for 13 people (54%), normal MCV for 11 people (46%), low MCH values for 16 people (67%), normal MCH for 8 people (33 %), MCHC results were low in 3 people (13%), MCHC was normal in 21 (87%). In the results of the number of granulocyte cells, the number of normal eosinophil cells was 24 people (100%), low neutrophils were 6 people (25%), normal neutrophils were 11 people (46%), high neutrophils were 2 people (29%), the results of the number Basophil cells were normal in 24 people (100%). Based on the results of the correlation test using the Spearman correlation test, it was found that there was no significant relationship between the erythrocyte index value and the number of granulocyte cells in typhoid fever patients at RSUD Haji Surabaya.*

**Keywords:** *Typhoid Fever, Erythrocyte Index Value, Number of Granulocyte Cells.*