INTISARI

Latar Belakang: Sindrom Stevens-Johnson (SSJ) dan nekrolisis epidermal toksik (NET) merupakan penyakit akut yang dapat menyerang kulit dan mukosa serta memiliki efek pada banyak organ hingga menyebabkan kematian. Insidensi kasus sekitar 0,4-6 kasus per satu juta penduduk per tahun dengan angka mortalitas 10-50%, paling banyak disebabkan oleh sepsis. Selama dua dekade terakhir, *severity of illness score for toxic epidermal necrolysis* (SCORTEN) digunakan dalam memprediksi mortalitas pasien SSJ dan NET, namun beberapa studi menemukan perbedaan dengan angka mortalitas aktual. Perubahan parameter laboratorium yang lebih sederhana, murah, dan mudah dinilai seperti leukositosis, leukopenia, trombositopenia, peningkatan enzim hepar, hipoalbuminemia, dan peningkatan kreatinin diduga berkaitan dengan proses inflamasi dan sepsis. Hingga saat ini, belum ada penelitian yang meneliti parameter laboratorium selain SCORTEN sebagai faktor prediktor mortalitas pasien SSJ dan NET di Indonesia.
Tujuan: Penelitian ini bertujuan untuk meneliti parameter laboratorium selain SCORTEN sebagai faktor prediktor mortalitas pada pasien SSJ dan NET.
Metode: Penelitian ini merupakan *historical cohort* dengan mengambil data rekam medis pasien dengan SSJ, SSJ *overlap* NET, dan NET yang dirawat inap di RSUP Dr. Sardjito periode Januari 2018-Juli 2023. Data parameter laboratorium diambil dalam 24 jam pertama setelah pasien didiagnosis dan dirawat inap. Luaran mortalitas dilihat selama pasien rawat inap di rumah sakit. Perbandingan waktu ketahanan hidup dianalisis menggunakan Kaplan-Meier. Faktor prediktor mortalitas dianalisis menggunakan univariat *cox-regression* untuk menunjukkan risiko mortalias yang lebih tinggi. Variabel yang memiliki p<0,25 dilanjutkan dalam analisis multivariat *cox-regression*.
Hasil: Sebanyak 77 subjek diteliti pada penelitian ini. Frekuensi SSJ, SSJ *overlap* NET, dan NET terdistribusi pada 58,4%, 20,8%, dan 20,8% pasien dengan angka mortalitas 22,2%, 25%, dan 18,8% pasien. Leukositosis, leukopenia, trombositopenia, peningkatan enzim hepar, hipoalbuminemia, dan peningkatan kreatinin memiliki angka mortalitas yang lebih tinggi dibandingkan normal dengan risiko mortalitas sebesar 3,24 (95% CI, 1,17-8,97; p=0,023), 1,51 (95% CI, 0,53-4,30; p=0,440), 6,75 (95% CI, 2,19-20,83; p=0,001), 1,15 (95% CI, 0,42-3,18; p=0,783), 1,54 (95% CI, 0,45-5,36; p=0,494), dan 5,37 (95% CI, 1,77-16,33; p=0,003). Waktu ketahanan hidup pasien dengan leukositosis (17,9 hari; p=0,064), leukopenia (15,5 hari; p=0,434), trombositopenia (12,7 hari; p=0,002), hipoalbuminemia (18,8 hari; p=0,110), dan peningkatan kreatinin (12,5 hari; p=0,001) lebih rendah dibandingkan normal, sedangkan peningkatan enzim hepar lebih tinggi dibandingkan normal, namun tidak signifikan (22,2 hari; p=0,782).
Kesimpulan: Leukositosis, leukopenia, trombositopenia, peningkatan enzim hepar, hipoalbuminemia, dan peningkatan kreatinin pada SSJ dan NET memiliki angka mortalitas yang lebih tinggi dibandingkan normal. Leukositosis, trombositopenia, dan peningkatan kreatinin merupakan faktor prediktor mortalitas yang bermakna secara klinis dan statistik.

Kata Kunci: *Sindrom Stevens-Johnson, nekrolisis epidermal toksik, parameter laboratorium, SCORTEN*

ABSTRACT

Background: Steven-Johnson syndrome (SJS) and toxic epidermal necrolysis (TEN) are acute diseases that can attack the skin and mucosa and have effects on many organs that can cause death. The incidence of cases is about 0.4-6 cases per one million population per year with a mortality rate of 10-50%, mostly caused by sepsis. Over the last two decades, the severity of illness score for toxic epidermal necrolysis (SCORTEN) has been used to predict mortality in patients with SJS and TEN. However, some studies have found discrepancies with actual mortality rates. Changes in laboratory parameters that are more cost efficient and easy to assess such as leukocytosis, leukopenia, thrombocytopenia, elevated liver enzymes, hypoalbuminemia, and increased creatinine are thought to be related to severe inflammation and sepsis. Furthermore, there has been no study examining laboratory parameters other than SCORTEN as a predictor of mortality in SJS and TEN patients in Indonesia.
Objective: This study aims to examine the laboratory parameters other than SCORTEN as a mortality predictor factors in SJS and TEN patients.
Methods: This study is a historical cohort by taking medical record data of patients with SJS, SJS/TEN, and TEN who are hospitalized at Dr. Sardjito general hospital for the period January 2018-July2023. Laboratory parameters were collected within the first 24 hours after the patient was diagnosed and hospitalized. In-hospital mortality was investigated in this study. Survival analysis was conducted using Kaplan-Meier. Mortality predictor factors were analyzed using cox-regression univariate to determine a higher risk of mortality. Variables with $p<0.25$ were continued in cox-regression multivariate analysis.
Results: A total of 77 subjects were included in this study. SJS, SJS/TEN, and TEN was distributed in 58.4%, 20.8%, and 20.8% of patients with mortality rates of 22.2%, 25%, and 18.8% of patients, respectively. Leukocytosis, leukopenia, thrombocytopenia, elevated liver enzymes, hypoalbuminemia, and increased creatinine had a higher mortality rate than normal with a mortality risk of 3.24 (95% CI, 1.17-8.97; p=0.023), 1.51 (95% CI, 0.53-4.30; p=0.440), 6.75 (95% CI, 2.19-20.83; p=0.001), 1.15 (95% CI, 0.42-3.18; p=0.783), 1.54 (95% CI, 0.45-5.36; p=0.494), and 5.37 (95% CI, 1.77-16.33; p=0.003), respectively. Survival time of patients with leukocytosis (17.9 days; p=0.064), leukopenia (15.5 days; p=0.434), thrombocytopenia (12.7 days; p=0.002), hypoalbuminemia (18.8 days; p= 0.110), and increased creatinine (12.5 days; p=0.001) was lower than normal, while the increase in liver enzymes was higher than normal, but not significant (22.2 days; p=0.782).
Conclusion: Leukocytosis, leukopenia, thrombocytopenia, elevated liver enzymes, hypoalbuminemia, and increased creatinine in SJS and TEN have a higher mortality rate than normal. Leukocytosis, thrombocytopenia, and increased creatinine are clinically and statistically significant predictors of mortality.

Keywords: *Stevens-Johnson syndrome, toxic epidermal necrolysis, laboratory parameters, SCORTEN*