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Utility of the Severity-of-Illness Score for Toxic Epidermal Necrolysis (SCORTEN) in Pediatric Stevens-Johnson Syndrome Patients

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Utility of the Severity-of-Illness Score for Toxic Epidermal Necrolysis (SCORTEN) in Pediatric Stevens-Johnson Syndrome Patients

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Introduction

The Severity-of-Illness Score for Toxic Epidermal Necrolysis (SCORTEN) is a scoring system that seeks to predict in-hospital mortality for disorders affecting skin integrity. The scoring system has been validated and widely utilized in adults, but not pediatrics. This study aims to determine the accuracy of the SCORTEN in pediatrics.

Methods

A retrospective review of pediatric patients admitted at a verified pediatric burn center with Stevens-Johnson Syndrome/Toxic Epidermal Necrolysis (SJS/TEN) from 2008 to 2022 was performed.

Results

Twenty-seven eligible SJS/TEN patients were identified. Three patients were excluded due to incomplete data, allowing twenty-four patients to be analyzed. Ten patients had 0-1 risk factors (3.2% mortality rate), thirteen had 2 risk factors (12.1% mortality risk) and one had 3 risk factors (35.1% mortality risk). There was no correlation between initial BUN, bicarbonate, glucose, or initial heart rate on the length of ICU stay or ventilator days. Student T-tests were performed comparing the 0-1 vs. 2 risk factor groups. Those with 2 risk factors had significantly higher TBSA affected on admission (32.72 ± 20.55 vs 8.26 ± 13.55 $p = .0005$). Interestingly, hospital length of stay, ICU length of stay, and ventilator days were not statistically significant between those having 0-1 and 2 risk factors.

Conclusion

A higher SCORTEN category did not correlate to a longer hospital stay, ICU days, or ventilator days. This study suggests that the SCORTEN system is not accurate in pediatric patients. A different scoring system is needed to estimate the disease severity in pediatric SJS/TEN patients.