736 Intravenous Immunoglobulin in Stevens-Johnson Syndrome & Toxic Epidermal Necrolysis: Experience from a Tertiary Care Center

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Introduction: Stevens-Johnson syndrome and toxic epidermal necrolysis (SJS/TEN) are rare severe cutaneous adverse reactions associated with high morbidity and mortality, however, there lacks an established treatment protocol. Treatment with intravenous immunoglobulin (IVIg) has demonstrated mixed success rates in improving mortality. It has been suggested that early intervention with IVIg in SJS/TEN patients may lead to a reduction in observed mortality rate when compared to the predicted rate. We present 24 patients with SJS/TEN treated in our burn unit with IVIg.

Methods: We conducted a retrospective analysis of patients who were hospitalized with the diagnosis of SJS/TEN in a specialized burn center over the years 2011-2020. Data regarding clinical factors, causative agent(s), disease severity, treatment received, and outcome were collected on chart review. SCORTEN and ABCD-10 prognostic scores were calculated for each patient at the time of admission. All patients were started on IVIg at the recommendation of dermatology. A standardized mortality ratio was obtained to compare the actual number of deaths to the predicted number based on SCORTEN and ABCD-10 formulas.

Results: A total of 24 patients were identified with a mean age of 49.8 ± 18.1 years. Most of the patients, i.e., 18 out of 24 had TEN, and 6 patients had SJS/TEN overlap with an overall average initial BSA involvement of 42.7% ± 25.3. Among the suspected drugs, sulfonamide antibiotics (41.7%) was the major predicted culprit. All patients were started on IVIg, 3 of which were treated in combination with corticosteroids. Most of our patients (23/24) received IVIg within 2 days of admission, but on average 11 ± 27 days (range: 2-135) after symptom onset. Many patients (10/24) experienced complications during hospital admission, such as: acute respiratory distress syndrome (8/24), sepsis (6/24), and anemia (2/24). There was no statistically significant difference in the overall observed mortality of 4 patients (16.7%) and the predicted overall mortality of 6.4 patients (26.7%) by the SCORTEN formula [standardized mortality ratio = 0.63; 95% confidence intervals, 0.17-1.61; $\boldsymbol{P}$ = 0.48], and the predicted overall mortality of 3.6 patients (15%) by the ABCD-10 formula [standardized mortality ratio = 1.12; 95% confidence intervals, 0.30-2.86; $\boldsymbol{P}$ = 0.96].

Conclusions: The findings of the present study do not support the clinical benefits of IVIg for SJS/TEN overlap and TEN patients.

737 Prevalence and Outcomes of HIV Infection Among Burn Patients at a Single Institution

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Introduction: Burn injuries are a significant cause of morbidity and mortality worldwide. Pre-existing conditions may further complicate a patient's outcome and delay wound healing. Human immunodeficiency virus (HIV) remains an ongoing problem globally and contributes to the morbidity of patients with burn injuries. According to the Centers for Disease Control and Prevention (CDC), the prevalence of individuals with HIV in the United States was 1.2 million in 2018. Burn patients and those with desquamating skin disorders are already in an immunocompromised state, and thus, the effect of HIV on the healing and recovery process can be significant. The objective of this study was to evaluate the prevalence and outcomes of HIV-positive patients admitted to our Burn Center.

Methods: This was a single-site, retrospective review using our institutional Burn Center registry. All adult patients (18 years or older) admitted to our Burn Center between July 1, 2010 and June 30, 2020 who were HIV-positive were included in this study. All adult patients who were HIV-negative and admitted during the same period were included for comparative purposes. Variables of interest included demographics, burn mechanism, length of stay (LOS), cost of hospitalization, and mortality.

Results: There were 32 HIV-positive burn patients and 16 HIV-positive patients with desquamating skin disorders (e.g., Stevens-Johnson syndrome/Toxic Epidermal Necrolysis). For the burn group, the mean age was 46.9 years +/- 10.6 years, and the mean total body surface area (TBSA) involvement was 3.2% +/- 4.2%. The mean LOS among HIV-positive burn patients was 9.13 days +/- 17.73 days, and the mean cost of hospitalization was $54,613. For the desquamating skin disorders group, the mean age was 47.1 years +/- 13.9 years, and the mean TBSA was 16.2% +/- 29.0%. The mean LOS was 17.25 days +/- 25.26 days, and the mean cost of hospitalization was $138,358. In terms of overall hospital mortality, there were no deaths among HIV-positive burn patients; however, the mortality was 25% among HIV-positive patients with desquamating skin disorders (n = 4). When both groups were compared to HIV-negative patients, overall hospital mortality remained higher among HIV-positive patients with desquamating skin disorders.

Conclusions: Management of HIV-positive burn patients presents a unique challenge for clinicians due to the immunocompromised state of this patient population. The challenge may even be more pronounced in HIV-positive patients with desquamating skin disorders as demonstrated in this study.