An Bras Dermatol. 2019;94(6):773–774

SOCIEDADE BRASILEIRA DE DERMATOLOGIA

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CORRESPONDENCE

Sepsis assessment in SJS/TEN: an important point overlooked?☆,☆☆

Dear Editor,

We read the study ''Epidermal necrolysis: SCORTEN performance in AIDS and non-AIDS patients''[1] with interest and congratulate the authors for their important work. We would like to highlight a point regarding the utility of SCORTEN in epidermal necrolysis. The authors rightly point out that generalized infections and sepsis are the major causes of mortality in SJS/TEN patients. However, SCORTEN does not include any direct marker of the infective state. It assesses parameters that may indicate infection or just reflect the ongoing systemic inflammatory response. Unfortunately, sepsis may have already set in at the time of admission. It is essential to know the infection status at presentation, both for prognostication and for deciding specific management. A delay in diagnosis of sepsis can result in rapid progression to circulatory collapse and organ failure. Further, any form of iatrogenically induced immunosuppression may be fatal for a septic patient. Awaiting cultures may postpone important decisions and may not always give an accurate picture. Non-specific markers, such as C-reactive protein, erythrocyte sedimentation rate, total leucocyte count, and platelet count share similar concerns. An ideal marker for early sepsis diagnosis needs to be sensitive, specific, rise early in the course of sepsis, produce reliable and reproducible results, and be easy to measure in a hospital setting. The available parameter that comes closest to these criteria is probably serum procalcitonin (PCT). The reactive pattern of PCT has an onset within four hours of response to infection or injury, peaks at six hours with a plateau of eight to 24 h, then returns to baseline in two to three days.[2] The normal levels of PCT are about 0.05 ng/mL. Higher levels, up to 0.5 ng/mL, occur in local infections, 0.5–2 ng/mL in systemic infections, 2–10 ng/mL in sepsis, and >10 ng/mL in severe sepsis.[3]

The utility of PCT for sepsis determination has been largely established in burn patients.[2,4] A similar systemic inflammatory response occurs in TEN, making differentiation from sepsis difficult. We have observed that a very high PCT value within 24 h of admission (>10 ng/mL) is a predictor of worse outcomes, irrespective of the SCORTEN value in the same time frame. Similar observations have been made by Mokline et al. in burn patients.[2]

Thus, we believe that day 0 PCT levels should be considered as an independent prognostic marker for SJS/TEN in addition to the validated parameters of SCORTEN. Further, we encourage trials specifically evaluating the role of PCT in the management of SJS/TEN.

Financial support

None declared.

Authors' contribution

Ananta Khurana: Approval of the final version of the manuscript; critical literature review; effective participation in research orientation; critical manuscript review; preparation and writing of the manuscript.

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Conflicts of interest

None declared.

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☆ How to cite this article: Khurana A, Sharma MK, Sardana K. Sepsis assessment in SJS/TEN: an important point overlooked? An Bras Dermatol. 2019;94:773–4.

☆☆ Study conducted at the Dr. RML Hospital, PGIMER, New Delhi, India

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Received 19 February 2019; accepted 13 June 2019;
Available online 11 November 2019

https://doi.org/10.1016/j.abd.2019.06.002

Sepsis assessment in SJS/TEN: an important point overlooked? – Reply☆,☆☆

Dear Editor,

We were pleased to read the additional commentary on our article by Khurana et al.[1] with the insight of adding procalcitonin as a serum marker for sepsis in severe epidermal necrolysis (EN) patients.

In many patients fever is attributed to the general inflammatory chaos of EN. Since prophylactic antibiotic therapy is not a standard routine and some patients have fever as an isolated infection signal, it seems reasonable to adopt a laboratory test to evaluate the likelihood of sepsis in patients with tachycardia, fever, or any other laboratory or clinical sign of infection not prompting antibiotic therapy. Thus, procalcitonin may be most helpful in the context of the initial expectant approach. A positive result should prompt change in intervention, and a negative result would be reassuring.

Hypothermia, on the other hand, could be a more specific clinical sign of sepsis. However, it is known to be associated with poor prognosis.[2] Recently, procalcitonin > 1 μg/L and also hypothermia were associated with positive blood cultures in EN patients.[3]

Despite the presence of sepsis, therapeutic immunosuppression must not be delayed in patients with high SCORTEN. During the chart review[4] some fatal cases were not prescribed systemic immunosuppression because of the possibility of sepsis, in a period of clinical decision preceding SCORTEN. Many of those patients could have had a different outcome if clinicians were aware that prediction of death was the most likely event according to SCORTEN, a game-changer in the treatment of EN.

Financial support

None declared.

Authors' contribution

Carlos Gustavo Wambier: Approval of the final version of the manuscript; critical literature review; critical manuscript review; preparation and writing of the manuscript.

Sarah Perillo de Farias Wambier: Approval of the final version of the manuscript; critical literature review; critical manuscript review.

Conflicts of interest

None declared.

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Received 3 June 2019; accepted 21 June 2019;
Available online 11 November 2019

https://doi.org/10.1016/j.abd.2019.06.003

☆ How to cite this article: Wambier CG, Wambier SP. ''Sepsis assessment in SJS/TEN: an important point overlooked?'' – Reply. An Bras Dermatol. 2019;94:774.

☆☆ Study conducted at the Department of Dermatology – Yale University School of Medicine, New Haven, United States.