

Review of: "Perspectives on the Immune System in Sepsis"

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Potential competing interests: The author(s) declared that no potential competing interests exist.

The article provided a thorough review of the molecular aspects of Sepsis. The role of the immune system, including pro-inflammatory and anti-inflammatory responses, in the severity and lethality of sepsis was discussed.

Because of the inflammatory pathways' complexity and overlapping modulation, the authors proposed a promising technique for obtaining a clear snapshot of the inflammatory milieu. This involves looking for actively transcribed genes by assessing the transcriptome for specific mRNAs. Of particular interest is the development of a blood-based diagnostic test that quantifies 29 host mRNAs and can distinguish infectious vs noninfectious diseases, predict disease severity and 30-day mortality, and discriminate bacterial vs viral infections. According to the review article, the 29-mRNA test is significantly better at predicting clinical outcomes in sepsis patients than CRP levels, leukocyte and lymphocyte counts, and the Charlson comorbidity index, and it is also more accurate in detecting bacterial and viral infections.

Finally, given the involvement of multiple systems and organs in the pathology of sepsis, the authors proposed that the disease could be better treated with molecules such as ascorbic acid and L-arginine, which have multiple, simultaneous positive effects on the immune, cardiovascular, endocrine, and metabolic levels.

The article is quite useful and informative. However, the article should be revised to make the contents clearer so that readers can appreciate the goals and major focus of the article. The abstract and introduction should be more descriptive, emphasizing the background, goal, and topics covered in the review article. Avoid using single-sentence paragraphs. Some of the short paragraphs should be consolidated into a single paragraph. The article should also go through a grammar check to correct any grammatical mistakes.

Thank you, and congratulations on your insightful article.