Sepsis Induced Coagulopathy, Roadway to Fatality

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Dear Editor,

Sepsis, a potentially fatal outcome, carries an extremely high risk of mortality. Coagulation abnormalities are often considered in association with sepsis. Changes that are significant clinically in terms of signs, symptoms or lab parameters affect up to 70% of septic patients of which 35% meet the criteria for disseminated intravascular coagulation [1]. Septic patients may develop thromboembolic sequela due to coagulopathies, and certain microvascular clots may not be clinically apparent but contribute to multiorgan dysfunction [2]. The risk of requiring intensive care and mortality increases with the severity of sepsis-induced coagulopathy (SIC). Lyon PG *et al.* reported in their study that hospital-based mortality doubled in patients with SIC from 25.4% in patients without SIC to 56.1% with severe SIC. Moreover, the length of ICU stays increased with the severity of SIC [3].

Despite recent advances in the management of sepsis that have resulted in an increase in the rate of survival, the coagulopathies caused by sepsis have received less attention. In order to prevent an increase in SIC-related mortality, we must address a number of issues, including patient delays in seeking care and hospital delays in acquiring proper health care services. As observed in our clinical practice the delay in treating patients with suitable antibiotics to treat the underlying infection is one of the most common issues noticed. In addition, there is no gold standard investigation for measuring coagulopathy. To monitor anticoagulant therapy, traditional coagulation testing designed as plasma-based tests are insufficient [4].

Sepsis-induced coagulopathy has shown high prevalence but is the least understood clinical issue in critical diseases and actions should be taken to reduce mortality from SIC. It is critical to manage SIC quickly and effectively, as any delay in therapy can increase the chances of negative outcomes [5]. In patients with sepsis who develop thrombocytopenia, the existence of SIC should be thoroughly investigated. The use of specific scoring frameworks, such as thrombocytopenia, delayed prothrombin time, and organ failure as measured by the Sequential Organ Failure Assessment score, should be used to determine the existence of coagulopathy in sepsis. Moreover, there are numerous different conditions that clinically mimic SIC. For instance, in clinical practice, it is frequently confused for heparin-induced thrombocytopenia, especially when it occurs in conjunction with organ dysfunction.

Given that coagulopathy in sepsis is a dynamic process with multiple manifestations, work should be done to develop an exact, precise, and ideal method to detect this dynamic alteration in sepsis so that patients are not delayed in receiving treatment. Furthermore, proper SIC management guidelines should be defined and implemented globally [6].

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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