Septic shock: A global response

Marc Leone

Aix Marseille université, Assistance publique-Hôpitaux de Marseille, hôpital Nord, service d'anesthésie et de réanimation, 13015 Marseille, France
marc.leone@ap-hm.fr

Septic shock is a sepsis-induced hypotension refractory to intravenous fluids. It is a distributive shock, resulting in multiple organ failure. The mortality rate is around 40%, but the causes of death remain unclear. Septic shock should be considered as a syndrome, not a disease [1,2]. Septic shock can be diagnosed everywhere: outside of the hospital, emergency department, wards, or intensive care units. Basically, during her or his career, each physician will meet at least a patient with septic shock. Thus, the education of a large number of health professionals is crucial. The time window for providing the best treatment to our patient is short [1,3]. To a large extent, the outcomes depend on the reactivity of the first medical team. This makes the responsibility of physicians immense. To this purpose, we propose a special issue of La Presse médicale focusing on septic shock. Four expert groups shared their experience, allowing us to improve our knowledge about this medical entity [4,7]. In an outstanding review, the group of Craig Coopersmith helps to understand the immune response of the patient with septic shock [4]. Remarkable progress has been achieved in understanding the pathophysiology of septic shock [8]. After years of wrong track, it seems actually that most of our septic patients are deeply immunosuppressed. Next steps are the identification of biomarkers of immune status and the administration of treatment boosting the immune response. Using mnemonics, the group of Jean-Louis Vincent elegantly summarizes the different steps of the hemodynamic management [5]. In short, fluid and vasopressor are the basics, and time is the cornerstone. The dynamics of the resuscitation is probably more critical than the sum of each intervention [9]. Having aroused huge hopes, negative results of randomized clinical trials using adjunctive treatments disappointed. Djillali Annane, one of the most famous experts in the field, synthesized brightly the evidence in the field [6]. All the drugs directed against the immune system failed to improve the patient outcome. The debate about low-dose steroids should be completed after the publication of the APROCHS trial (NCT00625209). Vasopressin should not be forgotten despite the negative results of VASST [10]. In selected patients, vasopressin analogs like selepressin, may potentially be useful in future years [11]. Finally, the group of Claude Martin reports the basics about the management of antimicrobial therapy in septic shock [7]. Early administration of antibiotics should be the rule. The choice of antibiotics depends on the patient history, local ecology and duration of hospitalization. Systematic reassessment, short duration and multidisciplinary approach are the fundamentals in order to avoid the emergence of multidrug resistant pathogens [12]. The debate is robust between the defendants and the detractors of guidelines. The detractors of guidelines plead for individualized strategies based on pathophysiologic skills [13]. In the patients with septic shock, the track between guidelines and pathophysiology is tenuous. Our goal here...
was to show the link between the two opinions. The use of guidelines has no sense if pathophysiology is ignored, and vice versa.

Disclosure of interest: Marc Leone received fees for consulting (Basilea) and educative support (MSD).

References


