



The Main Regularities of the Formation of the Syndrome of Systemic Inflammatory Reaction in Acetic Acid Poisoning

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Received 2nd Mar 2023,
Accepted 3rd Apr 2023,
Online 15th May 2023

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Abstract: Relevance. The modern bibliography, aimed at diagnosing, studying and treating the syndrome of systemic inflammatory response (reaction) as a conditional, inflammatory response of the body to the process of poisoning with CC and its derivatives, describes in sufficient detail the cascade mechanisms of the reaction of mediator systems to poisoning of the body with CC and its derivatives, and the very concept of "SSVR" was introduced into science by the American researcher R.K. Bone in 1991.

At the beginning of his research, Bone implied the use of this abbreviation as a concept characterizing necrotic processes manifested in the clinical picture of this syndrome. According to Bone, at least two clinical symptoms are sufficient to diagnose CVD in a person, which, in general, include a change in body temperature ($<36^{\circ}\text{C}$ or $>38^{\circ}\text{C}$), temperature (above 38°C or below 36°C), palpitations ($>90\text{ud}/\text{m}$) and respiratory movements (>20 times/min). Laboratory characterization of SSR is also possible, in particular, with criterion indications of the total number of leukocytes ($>12 \times 10^9$; $<4 \times 10^9$) and with an increase in the total proportion of PSL content ($>10\%$), conclusions about the presence of SSR are possible.

In the context of the ACCP\SCCM conference held in 1992, the fact was determined and confirmed in the scientific context that the pathological processes observed in CVD can be both non-infectious and infectious in nature, and, as a rule, the second of these is characterized by such criteria symptoms as tissue sepsis. This thesis served as the basis for determining the difference between non-infectious and infectious forms of CVD, the meaning and significance of which remains relevant and applicable in practice to this day. Also, the methods of clinical diagnosis (CD) and treatment of sepsis, including CVD, were approved. As it was agreed at this conference, the infectious process, as such, is nothing more than an anti-reactive replica of the human body to various external pathogenic factors of an invasive nature, whether bacterial or fungal invasions, and CVD is a significant complication of this very "replica" of the organism, the factors of which can be very different – mechanical tissue damage, burns, acute ulcers, etc. Together, the CVD and the focus of infection form sepsis and the corresponding clinical diagnosis, while if there is partial or complete dysfunction of certain organs, such sepsis is characterized as a severe form of it. The term "septic shock" is nothing more than a definition of the process of hypertension, implying the need for catecholamines [1.3.5.7.9.11.13].

From a theoretical point of view, the SSR should give an understanding of the relationship between the patient's state of health and the diagnosis thereof, in particular, the diagnosis of "sepsis", although not

in every case of infectious tissue damage, this diagnosis can be made due to the fact that sepsis is characterized by an exceptionally acute infectious lesion, which is usually followed by necrotic processes. In other words, the diagnosis of "sepsis" is extremely critical, and for this reason, the therapist should carefully diagnose the patient, examine him and only on the basis of the diagnostic parameters and criteria obtained, draw appropriate conclusions about a particular diagnosis.

Identical pathogenic mechanisms can become a precedent for the development of pathologies, and not always of an infectious nature, and these include various injuries, burns, symptoms of clinical death. All this is characterized by the death of cells of a particular tissue group, damage to them. In particular, as described in the previous paragraph, chemical tissue lesions are observed in case of poisoning with CC and its derivatives.

At a certain point in the course of the disease, the protective functions of the CVD begin to transform into a pathogenic character, provoking inflammatory processes at the cellular and tissue levels. The author proposes to consider non-standard reactions of the body to pathological processes in it with CVD, including those caused by poisoning of the criminal code and its derivatives, and also tried to formulate a general conceptual concept of "complex inflammation", which is a new definition in the conditions of this scientific work, and, as a rule, medical practice in general, in view of the fact that defining, criteria-based concepts that would characterize CVD are not quite enough, due to the wide range of possible scenarios for the development of the disease [2.4.6.8.10.12.14.16.18].

Among the existing criteria diagnostic parameters, there are also those that may be inappropriate in the conditions of a particular clinical picture: so, for example, tachycardia ($v > 90$ r/min) may not always indicate CVD. Tachycardia can also be an indicative criterion that xenobiotics are acting, and especially, this applies to patients with poisoning from CC and its derivatives. Research in the field of the immune system has shown that SSR is nothing more than the process of adaptation of the body to the inflammatory process, i.e. the process of the body's response to it, and conditionally can be divided into temporary components, the so-called "phases". Thus, the initial phase is considered to be the one in which the symptoms of CVD manifest themselves, the generation of LC is not particularly intense, and the inflammatory process lasts no longer than 20 hours. In the next, second phase of the course of CVD, the content of local cytokines in the blood increases, and this process has a sharp character. In the third phase of the SSVR course (i.e. on the 6-7 day of CD and treatment of CVD), referred to as hyperergic, the disease is characterized by significant pathogenic changes in the patient's laboratory parameters, in particular, the content of LC in the blood drops sharply, and in the fourth phase of the course of CVD, the risks of complications in CVD conditions increase sharply. In the fifth phase of SSR, the restorative functions of the body are most actively manifested, cells and tissues that have not been subjected to necrotic effects are regenerated, and the patient's laboratory parameters gradually return to normal [13.15.17.19].

CVD is a grouping and massive outflow of inflammatory mediators caused by the inflammatory process, or by processes of a stressful nature for the body, in which the body's reaction is most often characterized as a reaction to the inflammatory process by the activity of microflora.

Conclusion. In acute poisoning with acetic acid on the first day after hospitalization, there is a significant increase in the blood plasma content of markers of systemic inflammatory reaction: IL-6, IL-10, procalcitonin. The content of IL-10 in the group of patients, in recovered patients – the course of the disease in which was complicated by pneumonia, exceeded normal values in healthy patients by 12.3 times (66 (54;82) pg/ml), and in the group of recovered patients – the course of the disease in which was complicated by pneumonia, sepsis. multiple organ failure resulted in a fatal outcome of 54.2 times (271 (94;391) pg/ml) in the group of patients who had quarreled without complications by 4.1 times (22 (10; 44) pg/ml). Upon admission, the IL-6 content was 32.2 (161 (99; 209) pg/ml) high in the group of patients with pneumonia, 65 times (325 (173; 516) pg/ml) in the group of patients with

pneumonia, sepsis and death, 12.4 times (62 (42;91) pg/ml) in the group of recovered patients without complications. We concluded that an increase in the concentrations of IL-6 and IL-10 in the blood serum of patients with UK poisoning upon admission and up to 5 days of follow-up is an important evidence of the development of systemic inflammation.

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