EUROPEAN INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY RESEARCH AND MANAGEMENT STUDIES

VOLUME04 ISSUE02

DOI: https://doi.org/10.55640/eijmrms-04-02-18

Pages: 109-114

METHODS EARLY DIFFERENTIAL DIAGNOSTICS OF VARIOUS FORMS OF ODONTOGENIC SEPSIS

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ABOUT ARTICLE

Key words: Effectiveness, clinical symptoms and Abstract: Currently, not only is the mortality rate of patients with odontogenic sepsis high, but early laboratory parameters, various integral scales. diagnosis of progressive odontogenic **Received:** 04.02.2024 inflammatory process remains difficult. In many ways, the insufficient effectiveness of modern Accepted: 09.02.2024 Published: 14.02.2024 sepsis therapy is due to the premature prognosis of the development of multiple organ failure in conditions of exacerbation of concomitant pathology, exacerbating local and general clinical manifestations of infection. Multiorgan insufficiency is the main cause of death in patients with surgical sepsis of any etiology.

INTRODUCTION

In many ways, the insufficient effectiveness of modern sepsis therapy is due to the premature prognosis of the development of multiple organ failure in conditions of exacerbation of concomitant pathology, exacerbating local and general clinical manifestations of infection. Multiorgan insufficiency is the main cause of death in patients with surgical sepsis of any etiology [2]. The decisions of the Chicago International Mediation Conference (1991) made it possible to reliably and objectively assess the severity of multiple organ failure, the prognosis of the disease and the likelihood of an unfavorable outcome in patients with sepsis [2, 3, 5, 6]. Various integral scales have also been developed to assess the condition of patients with sepsis of various etiologies based on clinical symptoms and laboratory parameters: for example, SAPS II, APACHE II, SOFA, etc. [5]. At the same time, the use of these

systems and scales for odontogenic sepsis, which has its own unique features, has not been sufficiently studied. Organ dysfunction is often misdiagnosed in groups of patients without a progressive and complex inflammatory process, since specific changes in homeostatic parameters associated with chronic concomitant visceral pathology impair the ability to objectively predict the patient's condition. The purpose of the study is a comparative study of the predictive potential of various integral scales.

METHODS

Archival material from the Department of Maxillofacial Surgery of the Kursk Regional Clinical Hospital has been analyzed. It included 30 patients with common odontogenic infections treated in 2010 (the first block of the study); the study group was dominated by men aged 40-60 years (53.3%); severe sepsis according to ACCP/SCCM criteria (1992) amounted to 76.7% of cases, sepsis without organ failure - 23.3%. Thus, multiorgan insufficiency was a sign of odontogenic sepsis (according to the criteria of ACCP/SCCM (1992)), detected in 76.7% of patients; the results of using the APACHE II integral scale: less than 15 points (absence of multiorgan insufficiency) - all patients of the study group (30 patients, 100%); more than 15 points (multiorgan insufficiency) - all patients of the study group (30 patients, 100%); more than 15 points (multiorgan insufficiency) - all patients of the study group. The results of using the SAPS II integral scale: up to 49 points (good prognosis) - 26 patients (86.7%); 50-89 points (poor prognosis) - 4 patients (13.3%); 90 points or more (high mortality) - 0%; According to the SOFA scale, 28 patients (93.3%) scored less than 12 points (multiple organ failure), 13-17 points (dysfunction to failure) in 2 cases (6.6%) and 24 points (high mortality) - 0%. Multiorgan insufficiency was detected in 86.7% of patients. The results of using methods of early differential diagnosis of various forms of odontogenic sepsis (developed by the departments of Kursk State Medical University and Samarkand State Medical Academy named after N.N. Burdenko): more than 30 points (presence of multiple organ failure) - 22 patients (73.3%), 30 points or less (absence of multiple organ failure) - 8 (26.7%). Thus, the APACHE II prognostic scale turned out to be less informative in relation to the odontogenic, severe, pyogenic inflammatory process, since it did not reveal the presence of multiple organ failure in the group of patients with severe sepsis compared with sepsis without organ failure. At the same time, the developed method of early differential diagnosis revealed signs of multiple organ failure in more than 70% of cases. This indicates a high sensitivity of the scale, comparable to the sensitivity of the ACCP/SCCM criteria (1992). Only four patients (13.3%) had an unfavorable prognosis on the SAPS II scale; organ dysfunction was diagnosed in 86.7% of cases on the SOFA multiple organ dysfunction scale. The data obtained were processed using the chi-square criterion and a package of application programs for personal computers running Windows OS - STATISTICA 6.1 from StatSoft Inc.

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As a result, integral scales with high, medium and low sensitivity were identified for signs of multiple organ failure in patients with odontogenic sepsis (developed by the departments of Kursk State Medical University and Samarkand State Medical Academy named after N.N. Burdenko). N.N. Burdenko of the Samarkand State Medical Academy). Samarkand State Medical Academy). The study was conducted based on the analysis of diagnostic results of patients who were hospitalized in the Department of Maxillofacial Surgery of the Kursk Regional Clinical Hospital from 2000 to 2011. Patients (148 people) were divided into two groups: control (90 people, follow-up from 2000 to 2007, men - 56 (62.2%), women - 34(37.8%), average age - 44.6 ± 19.1 years), main (58 sepsis patients, follow-up from 2008 to 2011, men: 40 (69.0%), women - 18 (31.0%), average age - 43.8 ± 14.7 years); The diagnosis was carried out according to a specially developed program described above. The results of the diagnosis of various types of odontogenic sepsis according to the developed methods are presented below. As can be seen, the effectiveness of early diagnosis of odontogenic sepsis has significantly increased. Since the effectiveness of the treatment of surgical sepsis directly depends on the correct diagnosis, mortality rates are also shown, emphasizing this relationship. Currently, the mortality rate of patients with sepsis in the department of Maxillofacial surgery of the Kursk Regional Clinical Hospital is about 14%, which is a significant achievement in the diagnosis and treatment of severe surgical infections of odontogenic origin.

CONCLUSION

The application of the method of early differential diagnosis of various forms of odontogenic sepsis, developed at the Kursk State Medical University named after N.N. Burdenko and at the Department of Maxillofacial Medicine of Samarkand State Medical University, integrating the SOFA scale and ACCP/SCCM criteria (1992), which allows early objectification of the patient's condition. and creates the prerequisites for proper treatment and reduction of deaths. The SCCM criteria were poorly suited for the diagnosis of odontogenic multiorgan insufficiency, since this diagnostic system showed multiorgan insufficiency (poor prognosis) in only 13.3% of patients. Using the APACHE II integral scale to predict odontogenic multiorgan insufficiency is ineffective. In general, this problem requires further research and the development of new diagnostic programs.

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