

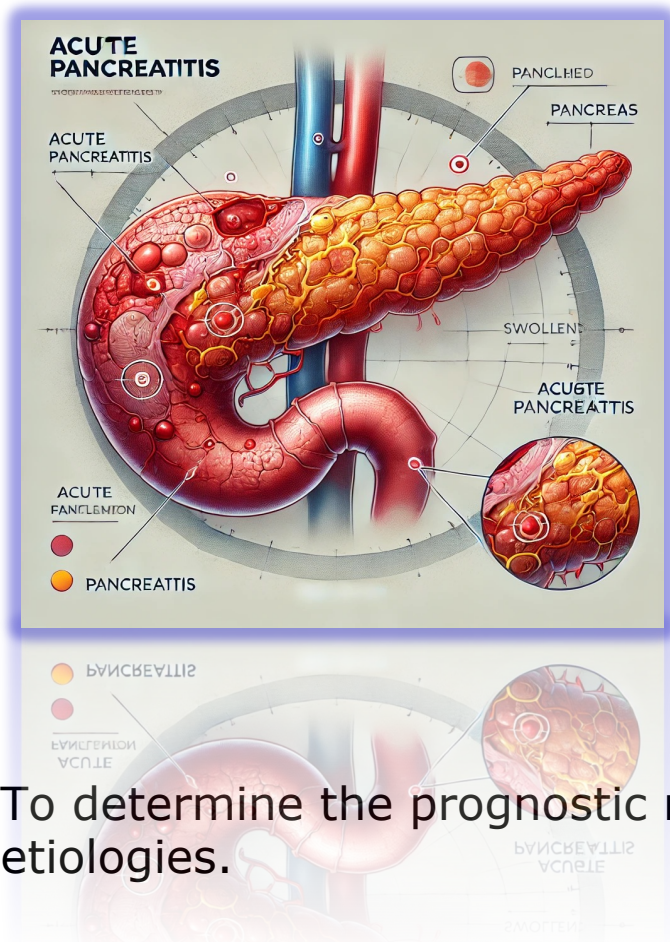
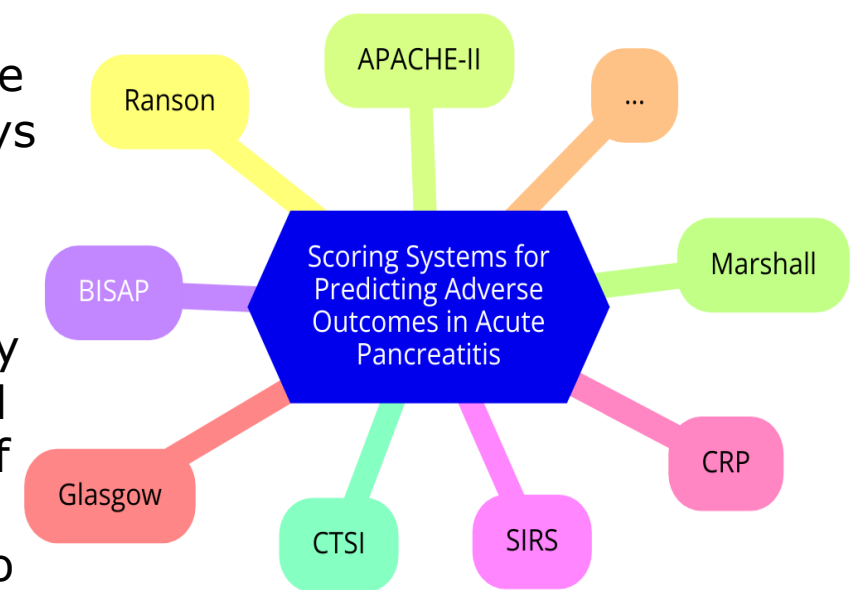
PROGNOSTIC VALUE OF DIFFERENT TOOLS FOR ASSESSING THE RISK OF ACUTE PANCREATITIS FOR VARIOUS ETIOLOGIES

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Introduction

Despite the existence of many scales and biomarkers for predicting the course of acute pancreatitis (AP), it is not always possible to predict an unfavorable outcome. The main causes of acute pancreatitis are: biliary etiology and alcohol-alimentary factor. Most currently existing forecasting methods are based on recording indicators characteristic of the phase of local or systemic complications, and also do not take into account the etiological factor.

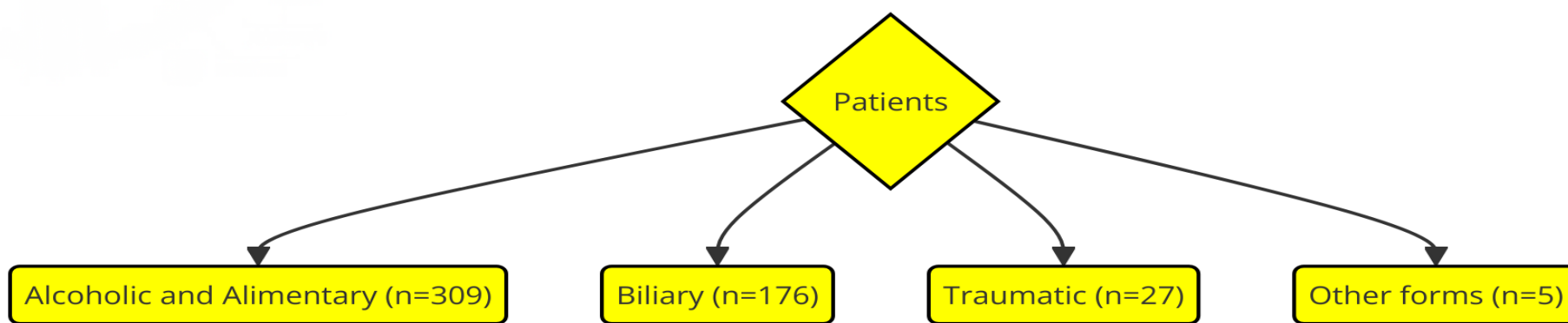


Objective

To determine the prognostic role of tools for assessing the risk of unfavorable outcome of AP of various etiologies.

Material and methods

A retrospective observational study was conducted that included 517 patients. The reported study was funded by Russian Science Foundation, research Project №24-25-00164.

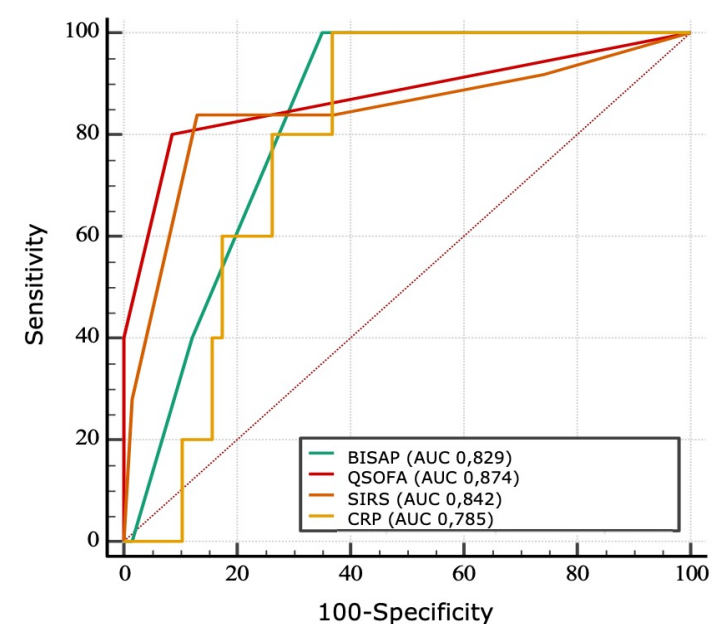
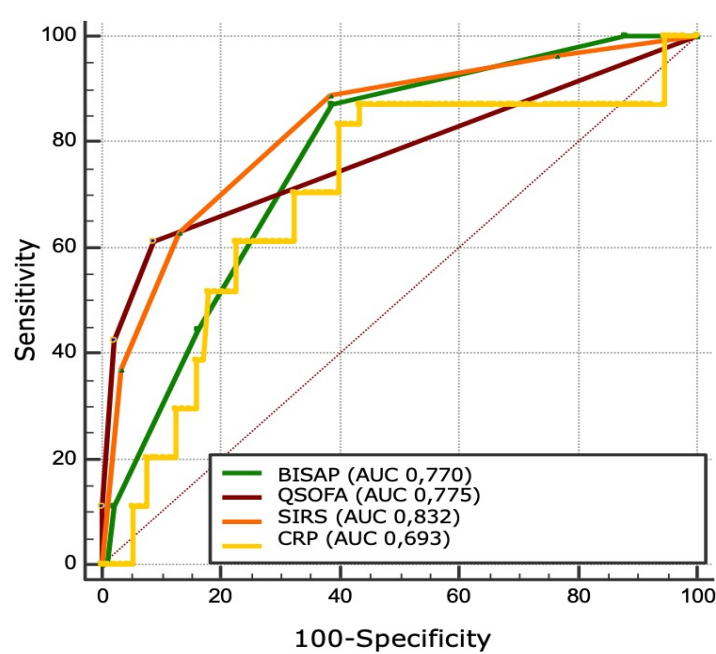


Results

Overall mortality in the study cohort was **10.4%**. Mortality in subgroups by etiology differed - the highest rate of deaths was observed with **biliary** pancreatitis - **15.3%** (with alcohol/alimentary pancreatitis - 8.1% ($p = 0.01$)).

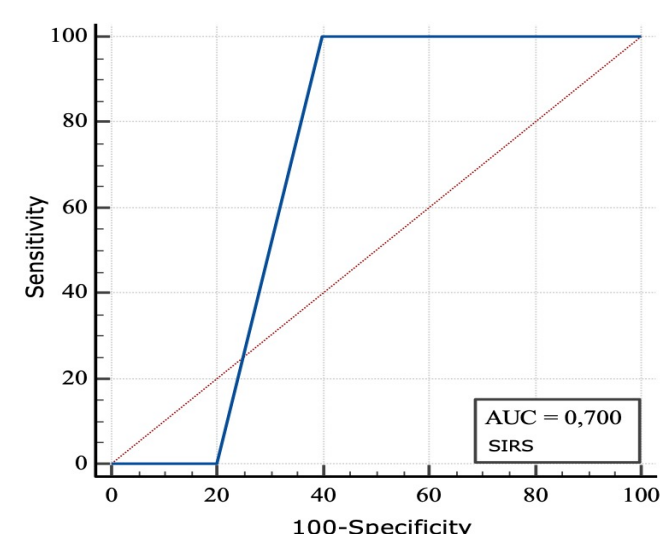
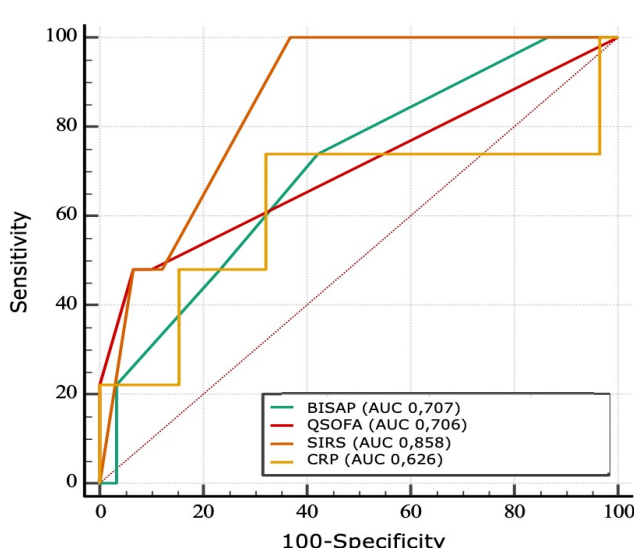
As a result of the analysis of the **studied cohort**, the SIRS criteria turned out to be the most effective for predicting an unfavorable outcome (AUC 0.832).

In case of **alcoholic/alimentary etiology** of AP, the qSOFA has the greatest prognostic value for an unfavorable outcome (AUC 0.874, CI95% 0.831-0.909; $p < 0.0001$), the SIRS (AUC 0.842, CI95% 0.796 - 0.88; $p < 0.0001$), BISAP (AUC 0.829, CI95% 0.783 - 0.869; $p < 0.0001$) and CRP (AUC 0.785, CI95% 0.735-0.830; $p < 0.0001$) have less value.



The SIRS worked better for predicting an unfavorable outcome in the group of **biliary pancreatitis** (AUC 0.858, CI95% 0.796 - 0.905; $p < 0.0001$), for BISAP and qSOFA AUC 0.707 (95% CI 0.632-0.772; $p < 0.0001$) and 0.706 (95% CI 0.633-0.772; $p < 0.0001$), respectively.

For **traumatic etiology**, only the SIRS had statistical significance (AUC 0.700, CI95% 0.494 - 0.860; $p = 0.0143$).



Conclusion

Available tools for assessing the risk of adverse outcome in patients with acute pancreatitis show varying effectiveness depending on the etiology of AP, highlighting the need for large-scale studies **to create universal multifactorial scales and/or biomarkers** that can accurately predict the course of the disease.