

CHA2DS2-VASc Score and Predicting Intensive Care Unit Admission

CHA2DS2-VASc Skoru ve Yoğun Bakım Ünitesine Başvuruların Öngörülmesi

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To the Editor, we would like to discuss on the publication “The Role of CHA2DS2-VASc Score in Predicting Intensive Care Unit Admission in Patients with COVID-19: Retrospective Study.”¹ Karabulut and Karabulut mentioned that “*The CHA2DS2-VASc risk score can be used to predict intensive care unit admission in COVID-19 patients, and it is correlated with serum D-dimer levels.*” We agree that the score might be useful for predicting risk. However, the intensive care unit admission depends on several factors. The alternative therapies given to the coronavirus disease-2019 patients can determine the course of the disease. Also, during pandemic, there might be rapidly increasing requirement for intensive care and there might not be insufficient space. Regarding scoring, there are also other scoring systems that are reported for better

prediction property against mortality. Examples are ATRIA, HATCH and HAVOC.^{2,3}

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Conflict of Interest

No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.

Authorship Contributions

All authors contributed equally while this study preparing.

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Reply to Letter to the Editor: CHA2DS2-VASc Score and Predicting Intensive Care Unit Admission

Editöre Mektuba Yanıt: CHA2DS2-VASc Skoru ve Yoğun Bakım Ünitesine Başvuruların Öngörülmesi

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As the authors stated, intensive care unit (ICU) admission in patients with coronavirus disease-2019 (COVID-19) depends on many conditions and changes very fast. However, it does not surprise the predictive ability of CHA2DS2-VASc score for ICU admission in COVID-19, which is more mortal in older patients and frequently complicated with embolic complications. In a large-scale meta-analysis, age, hypertension, and cardiovascular disease were shown to be the leading predictors of ICU hospitalization in patients with COVID-19. This result is compatible with our study results.¹

Our study did not analyze the value of the CHA2DS2-VASc score in predicting mortality in COVID patients. Also, Hu et al. compared the scoring systems regarding all-cause mortality in AF patients.² Beyond this, mortality studies performed with embolic risk scores in patients with COVID-19 are

mostly in-hospital and short-term.³⁻⁵ Contrary to Abacıoğlu et al.'s study, in another study in which ATRIA and CHA2DS2-VASc were compared in COVID-19 patients, it was shown that both scores were significantly higher in patients who deceased compared to survivors. Still, they were not an independent predictor of mortality.^{3,4} In another more extensive study, the modified ATRIA risk score (M-ATRIA-RS) was shown to be a better predictor of mortality than the ATRIA and CHA2DS2-VASc scores.⁶ In summary, the data regarding the superiority of these scores over each other in predicting mortality in COVID patients are controversial. Because they are inexpensive, easy to calculate, and practical, using all of them together may be more beneficial for prognosis in patients with COVID-19. In addition, the results of the study should be supported by large-scale studies to be conducted only in COVID patients.

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