External validations of the ABCD2 score in prediction of stroke risk after transient ischemic attack. A Tunisian hospital-based cohort study

Daoussi Nizar, MSolli M Amine, Mouna Aissi, Rafik Machraoui, **Sekma Adel** ,
Khaoula Bel Haj Ali,   show all

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ABSTRACT

Background and purpose

Identification of patients with high risk of stroke after transient ischemic attack (TIA) could be helpful to optimize stroke prevention. We aimed to externally validate the ABCD2 score for the prediction of stroke after TIA in a Tunisian population.

Methods

We conducted a retrospective observational study of consecutive patients admitted for TIA in four university hospitals in Tunisia. Patients were screened for onset of stroke. Sensitivity, specificity, positive and negative predictive values with areas under the receiver operating characteristic (ROC) curves were calculated for risk of stroke at 2, 7, 30 and 90 days after the index event.

Results

Of 415 patients screened in this study, the total cumulative subsequent stroke rates after TIA at 2, 7, 30 and 90 days were respectively, 4.8%, 10.6%, 13.5% and 20.2%. Using a cut-off value of 4, the ABCD2 showed an overall good sensitivity (95%, 97.7%, 96.4% and 97.6% respectively at 2, 7, 30 and 90 days). Areas under ROC cure of the ABCD2

score in patients with TIA for stroke onset at 2, 7, 30 and 90 days were respectively 0.67 (95% CI, 0.55-0.79), 0.79 (95% CI, 0.71-0.85), 0.79 (95% CI, 0.72-0.85), and 0.76 (95% CI, 0.70-0.81).

Conclusion

Our findings suggest that the ABCD2 score could be used in our population to discriminate patient with TIA at low and high risk of developing recurrent stroke.