ABCD2 score to identify people at risk of stroke has limited clinical application

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The ABCD2 score used to identify people at risk of stroke after suffering a transient ischemic attack — a "mini" or "warning" stroke — is not sensitive enough to distinguish between high- and low-risk patients and has limited clinical application, states an article in *CMAJ* (*Canadian Medical Association Journal*).

The ABCD2 score (Age, Blood pressure, Clinical features, Duration of symptoms and Diabetes) is commonly used as a tool for physicians to identify people at high-risk of stroke after transient ischemic attacks, although it has not been widely applied clinically by physicians at the bedside.

The study, designed to assess the effectiveness of the ABCD2 score, included 2056 patients aged 18 or older who experienced a transient ischemic attack or minor stroke at eight Canadian emergency departments between 2007 and 2010. The mean age of the patients was 68 years, and half were female. For most patients, this was their first transient ischemic attack; about half experienced motor weakness, one-third reported speech irregularities and most had symptoms for at least 10 minutes. Thirty-eight (1.8%) of patients had a stroke within 7 days of the first visit and 65 (3.2%) within 90 days. An additional 201 patients (9.8%) had a second transient ischemic attack between 7 and 90 days.

"We found that an ABCD2 score of more than five had low sensitivity for predicting subsequent stroke at 7 or 90 days," states Dr. Jeffrey Perry, University of Ottawa and Ottawa Hospital Research Institute, with

coauthors. "We believe that the sensitivities we found are too low to be clinically acceptable."

"The ABCD2 score can be credited for increasing awareness of transient ischemic attack as a medical emergency that carries with it a substantial and modifiable risk for subsequent stroke," write the authors. "This study determined that the criteria used to calculate the score are not sensitive enough to classify patients as being at low risk. We also determined that the 2009 recommendation by the American Heart Association of using an ABCD2 score of more than two to determine high risk has a very low specificity, classifying almost all patients as requiring immediate imaging and perhaps admission to hospital."

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