

Is the ABCD<sub>2</sub> grading useful for clinical management of TIA patients? -  
Yes

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Transient ischemic attacks (TIA's) are very important in identifying stroke risk; it is reported to be 3.1% in 2 days and 5.2% in 7 days! While this was the average risk, there are high-risk's TIA patients which carry even higher early risk of stroke.

This was reported clearly in the past 10 years and it was shown that those with the high early stroke risk can be identified by clinical and investigational means.

Clinical scores such as ABCD<sub>2</sub>, ABCD<sub>3</sub> were developed for TIA patients and most studies reported their usefulness in identifying those high-risk patients.

As specific etiologies such as high grade carotid stenosis along with positive brain imaging were also found to be associated with higher risks, the ABCD<sub>3</sub>-I score was developed; it includes brain and cervical imaging and its usage was claimed to carry even a higher predicting value.

These high-risk patients need urgent therapeutic approach, as effective stroke prevention measures are available and invaluable; by appropriate immediate approach, the stroke risk was reduced by up to 80% in one study! other studies showed similar results. These good results can be achieved only by utilizing facilities to identify urgently TIA patients- i.e. 24h TIA clinics such as the SOS TIA clinic in Paris, which also reported favorable results.

Specific measures to reduce stroke risks (such as carotid endarterectomy or stenting) are available yet it is impractical to wait for such intervention without introducing immediate medical treatment in the interim and, likewise, in cases where potential interventions are not identified.

TIA's, in most cases, stem from the arterial tree due to embolic particles originating at unstable atherosclerotic plaques where thrombotic & thromboembolic processes occur; by antithrombotic treatment we can slow the coagulation cascade at the site of unstable plaques.

Of all antithrombotic agents, antiplatelets (AP) were proven to be the most effective in preventing or reducing these processes (besides statins).

Recommended AP agents for secondary stroke prevention include aspirin alone, clopidogrel alone and the combination of dipyridamole with low dose aspirin. Its

relative stroke risk reductions range from 22 to 37%, yet these results are based on studies which emphasize long term treatment.

The key issue nowadays, as TIA treatment should be urgent, is how early these agents exert their protective effects.

Clopidogrel is a pro-drug and its effectiveness can be hastened by the administration of a loading dose (300-600 mg). Its combination with aspirin was found useful in several clinical vascular situations (such as unstable angina and stent implantation). Yet, similar studies in secondary stroke prevention- the MATCH and SPS3 studies- found no beneficial effect throughout the studies' periods (1.5 & 3.4 years respectively), mainly due to bleeding side effects. Therefore this combination is considered risky and is not recommended for secondary stroke prevention.

Both studies, however, did not aim for the very early post TIA/ stroke period- the period when the risk is the highest! Small studies comparing this combination early on in patients with symptomatic carotid disease (CARESS, CLAIR) demonstrated a significant reduction in emboli production and subsequent meta-analyses of outcome data from these studies along with data taken from larger studies (for those patients recruited very early) as well as from newer, relatively small, studies (FASTER, EARLY), as well as a large Chinese study (CHANCE) have shown beneficial effect for dual AP regimen in reducing risks of stroke and death early on.

Therefore it seems that we have a powerful AP treatment which could be used for our high-risk TIA patients. It's worth the risk, at least for this subgroup (by using the ABCD grading scores).

Another issue is how early should the investigation be done? the ABCD2 score (and alike) is useful for this decision; a recent NICE guideline suggest a cutoff of 4 points to splint patients into 2 or 7 days of investigation completion schedule.

Thus the ABCD2 grading score is useful in the management of TIA patients.

These points will be further elaborated in this debate.