



To News Editor
For Immediate Release

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CUHK Introduces New Scoring System to Predict Long-term Risk of Stroke and Death after Transient Ischemic Attack

Stroke is the third most common cause of death worldwide and is the leading cause of disability in adults. Ischaemic stroke is a disease characterized by loss of brain functions due to inadequate blood supply to brain, which can lead to permanent physical disability. Transient ischaemic attack (TIA), on the other hand, is a mild form of stroke that lasts for less than 24 hours. It occurs when the blood supply to part of the brain is briefly interrupted. TIA symptoms are similar to those of stroke but do not last as long. Despite that most symptoms of TIA resolve within 24 hours, TIA can be a warning sign of a more serious stroke, and is thought to precede stroke in 15-26% of patients. Based on symptoms alone, it is often difficult for frontline medical staff to decide who needs emergency assessment after TIA. In the Prince of Wales Hospital, there are more than 100 patients admitted for TIA every year.

The ABCD² score is a simple method, designed by Caucasians, which helps to predict short-term risk (up to 90 days) of stroke after TIA. It is a 7-point score based on five clinical factors (Age, Blood pressure, Clinical features consisting of weakness and speech impairment, Duration of symptoms and Diabetes Mellitus). A score of 6 or above has a 2-fold increased risk of early stroke.

A research team led by Professor Lawrence Ka Sing WONG, Mok Hing Yiu Professor of Medicine, The Chinese University of Hong Kong (CUHK), has modified the ABCD² score to tailor for the need of Chinese patients. As intracranial stenosis is a common cause of stroke in Chinese patients, CT scan of brain (Lesion in CT brain) and Transcranial Ultrasound (Large artery atherosclerosis from Transcranial Doppler) findings are included to form the new ABCD²L² score. This is a 9-point score, and contains additional radiological evidence of stroke and large artery atherosclerosis. This scoring system has been validated in 481 patients in the Prince of Wales Hospital who were admitted for TIA and minor stroke from January 2004 to December 2005. Compared with the ABCD² score, the ABCD²L² score is more effective in predicting the risk of stroke after TIA. Moreover, it predicts the *long-term* risk (average follow-up period of 40 months) of stroke and death. A score of 8 or above predicts a 5-fold increased risk of stroke in the long run.

In summary, the ABCD²L² score is a scoring system tailored for Chinese patients with TIA. It accurately predicts the long-term risk of stroke and death. In clinical practice, the use of ABCD²L² score facilitates the selection of patients who require emergency assessment and appropriate treatment.



致新聞編輯
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中大研究嶄新評分方法 有效評估腦缺血發作後的中風及死亡風險

中風是全球第三個常見的致死原因，也是引致成人殘障的主要原因。缺血性中風是指因腦血管阻塞而導致腦功能障礙，可造成永久殘障。短暫性腦缺血發作是一種輕微的缺血性中風，主因是腦部短暫缺血，病徵跟缺血性中風一樣，但維持的時間較短。縱使病徵多於 24 小時內消失，惟短暫性腦缺血發作可能是缺血性中風的先兆。在缺血性中風的患者中，大約 15% 至 26% 的人士在中風前會有短暫性腦缺血發作。對前線醫護人員來說，單憑病徵來決定那些病人需要緊急評估，是一件不容易的事。在沙田威爾斯親王醫院，每年就有超過 100 名病人因短暫性腦缺血發作而入院。

ABCD² 分數是一個由西方國家研究出來的簡單方法，目的是預測短暫性腦缺血發作後短暫的中風風險（以 90 天為上限）。這個方法以下列五個特徵來評分（年齡 > 65 歲、血壓、一邊身體突然乏力及言語混亂、病徵持續時間、糖尿病），滿分為 7 分。分數越高，短期中風風險越大。分數高於 6 分的人，短期的中風風險比其他病人高兩倍。

由於顱內動脈硬化是中國人常見的中風成因，為切合中國人需要，香港中文大學（中大）莫慶堯內科醫學講座教授黃家星教授及其研究團隊設計了一個嶄新的評分方法以評估短暫性腦缺血發作後的中風及死亡風險。除了 ABCD² 分數中的五個考慮元素外，新方法加入了電腦掃描及顱內超聲波檢查以診斷血管梗塞和顱內動脈硬化的跡像。這個新方法名為 ABCD²L² 分數，滿分為 9 分。研究人員跟進了 481 名在 2004 年 1 月至 2005 年 12 月期間因短暫性腦缺血發作和輕微中風而入住威爾斯親王醫院的病人。結果發現，相比起 ABCD² 分數，ABCD²L² 分數能更有效評估短暫性腦缺血發作後的中風及死亡風險，而評估風險時間亦相對較長（平均跟進時間為 40 個月）。8 分或以上的病人，日後再中風或死亡的長遠風險比其他病人高 5 倍。

總括而言，ABCD²L² 分數專為中國人而設，是一個能有效評估短暫性腦缺血發作後的長期中風及死亡風險的方法。在臨床應用上，這個方法可幫助前線醫護人員識別高危病人，有效評估病人住院需要和選擇適當的治療方法。

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