

## Hospitalised care for patients with transient ischaemic attack

*To the Editor*—I read with interest the article by Ng et al<sup>1</sup> in the April 2004 issue of the *Hong Kong Medical Journal*. Its objective was to issue guidelines for the care of acute stroke patients in Hong Kong. The authors recommended that patients with transient ischaemic attack (TIA) should be referred for fast-track assessment in a specialised clinic, implying that hospitalised care is not necessary. As far as I am aware, many patients diagnosed with TIA are currently admitted to hospital as emergency cases. Adopting the authors' approach would be helpful in alleviating the problem of hospital bed shortage that currently exists in the public sector.

Although the issue is well known to be controversial, with wide variations in practice, the authors provided only one reference to support their recommendation. In addition, this reference was based only on expert opinion, published in 2000.<sup>2</sup> More recent research has shown that the short-term risk of stroke and other adverse events among patients with TIA is substantial, so it may not be safe to send such patients home for out-patient management.<sup>3,4</sup> In these studies, 5% of patients sustained a stroke within 2 days of a TIA. Hospitalised care is recommended if the appropriate evaluation cannot be conducted within 24 hours on an out-patient basis.<sup>5</sup> This type of fast-track, multi-disciplinary, specialist clinic is currently not available in the public sector in Hong Kong. The United States National Stroke Association guidelines recommend hospitalisation if appropriate imaging studies are not immediately available.<sup>5</sup>

The risk-stratification of TIA patients may help disposition decisions in an emergency department or in a primary care setting. Several independent risk factors for stroke have been identified (eg age over 60 years, diabetes, duration of symptoms for more than 10 minutes, and weakness or

speech impairment with the episode).<sup>4</sup> Patients with these risk factors are more likely to benefit from in-patient care, which may expedite evaluation and initiation of therapy.<sup>5</sup> Furthermore, most patients with TIAs that are associated with recent-onset atrial fibrillation or flutter should be admitted for monitoring, for echocardiography, and for consideration of anticoagulation in the hospital. If a cardioembolic or carotid source is suspected, further appropriate imaging should be performed as soon as possible. The possibility of complications, and the need for prompt investigation and treatment, indicate that care in a specialised clinic may not suffice. This has far-reaching implications on the standard of patient care and on resource utilisation. Hence, more in-depth elaboration by the local experts is warranted.

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## Authors' reply: Transient ischaemic attack patients are often underevaluated

*To the Editor*—We would like to thank Dr SSW Chan for his comments on our article.<sup>1</sup> Transient ischaemic attack (TIA) is defined as a neurological deficit lasting less than 24 hours that is attributed to focal cerebral or retinal ischaemia. Most patients, however, will recover within 60 minutes. Transient ischaemic attack is a warning sign of cerebrovascular compromise, and the risk of subsequent ischaemic stroke is significant. Following a TIA, the incidence of stroke is as high as 30% within the next 5 years. Numer-

ous studies have revealed that the short-term risk of stroke is high—between 9% and 12% within 30 days of a TIA. Half of the strokes may occur within the first 48 hours.<sup>2-4</sup> Multiple TIAs within a short period or crescendo TIAs usually indicate critical stenosis of the afflicted artery and warrant early intervention.

The recognition of TIAs provides an opportunity for stroke prevention. However, the optimum management of

TIA patients is not certain, and whether immediate anti-thrombotic therapies would decrease the early risk of stroke is unproven. A recent report suggests that endarterectomy performed within 2 weeks of symptoms yields the best outcome.<sup>5</sup> However, carotid stenosis is an uncommon cause of stroke in Hong Kong. The key issues in the management of TIA patients include: making the correct diagnosis and excluding other potential causes (Box); evaluating vascular risk factors; and initiating the appropriate antithrombotic treatment. In the Ontario Prospective Stroke Registry,<sup>6</sup> most patients with TIA were not admitted for evaluation. Neurological consultation and neuro-imaging procedures were performed in 29% and 31% of patients respectively, before discharge from the emergency department. Upon discharge, more than one third of patients were not prescribed any antithrombotic treatment.

The consensus statement<sup>1</sup> stresses that these patients should be referred for fast-track assessment in a specialised clinic for early evaluation and intervention. Many public hospitals in Hong Kong have not established fast-track neurovascular clinics for the assessment of TIA patients; thus, many TIA patients are admitted to hasten the evaluation. Nevertheless, many medical colleagues regard TIAs as being more benign than strokes and often do not consider a TIA as an indication for urgent computed tomography (CT) examination. Although patients with intracerebral haemorrhage rarely present with rapidly resolving neurological deficits, many colleagues will not initiate antithrombotic therapy for TIA patients until the CT brain scan has ruled out haemorrhage. As a consequence, treatment is often delayed for local TIA patients despite in-patient care.

We agree with Dr Chan that TIA patients belong to a heterogeneous group and that risk-stratification might be helpful in determining which patients should receive in-patient evaluation. However, there is currently insufficient data for us to define the optimum mode of care delivery for these patients. As new diagnostic techniques develop, and trial results for the immediate intervention of TIAs

become available, we would be able to offer more concrete guidelines for the management of TIA patients in our next review of the consensus statement.

Conditions that mimic transient ischaemic attacks:

- (1) Migraine
- (2) Seizure or postictal Todd's paralysis
- (3) Hypoglycaemia
- (4) Postural hypotension
- (5) Subdural haematoma
- (6) Cerebral venous thrombosis
- (7) Cervical disc disease
- (8) Carpal tunnel syndrome

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## Answers to CME Programme Hong Kong Medical Journal June 2004 issue

Hong Kong Med J 2004;10:150-5

### I. Out-patient chronic pain service in Hong Kong: prospective study

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|---|----------|---------|----------|----------|----------|
| A | 1. False | 2. True | 3. True  | 4. False | 5. True  |
| B | 1. True  | 2. True | 3. False | 4. True  | 5. False |

Hong Kong Med J 2004;10:197-200

### II. Use of hair analysis in the diagnosis of heavy metal poisoning: report of three cases

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| A | 1. True | 2. True | 3. True | 4. True  | 5. True  |
| B | 1. True | 2. True | 3. True | 4. False | 5. False |