Test your knowledge

Stroke is a devastating event that is, unfortunately, relatively common in Australia. Some patients do not have any risk factors or warning signs; others are in high risk categories that invite intervention. Find out if your skills are up to date.

The multiple choice questions in this quiz may have more than one answer.

1. Which of the following are risk factors for stroke?
a. hypertension
b. atrial fibrillation
c. heart failure
d. age greater than 65 years
e. diabetes mellitus

2. What is the accepted definition of a transient ischaemic attack (TIA)?
a. an episode of neurological symptoms lasting less than 12 hours
b. any episode in which neurological symptoms resolve, regardless of its duration
c. an episode of neurological signs or symptoms lasting less than one week
d. an episode of neurological signs or symptoms lasting less than 24 hours
e. any episode of neurological symptoms that are not associated with an abnormality on physical examination

3. A 65-year-old man has an episode of visual loss in his left eye that lasts for three hours and then resolves completely. Ophthalmological and neurological examinations the next day are normal, as are a full blood count and ESR. What is the most likely diagnosis in this case?
a. hysteria
b. a TIA in the vertebrobasilar arterial distribution
c. a TIA in the distribution of the left carotid artery
d. optic neuritis due to multiple sclerosis
e. temporal arteritis

4. Which of the following are the most appropriate initial investigations for the patient in Question 3?
a. a CT scan of the brain
b. doppler studies of the carotid arteries
c. a temporal artery biopsy
d. visual evoked response testing
e. a lumbar puncture

5. A 68-year-old-woman presents with atrial fibrillation of recent onset and reports a recent episode of aphasia lasting two hours. She has a history of myocardial infarction and is being treated for hypertension and heart failure. What management should be initiated?
a. a CT scan of the brain
b. a cardiac echo
c. warfarin, provided that there is no evidence of haemorrhage on the CT scan or any other contraindications
d. regular aspirin
e. observation – she will require investigation and treatment only if another episode of aphasia occurs

6. What is an individual's risk of completed stroke following a TIA?
a. equal to that of controls (matched for age and sex) with equivalent risk factors
b. 50% in the next six months
c. 20% in the next six months
d. 20 to 50% in the next five years
e. approaching 100% over the next five years

7. Stroke is a common cause of dementia in Australia. Which of the following are true of measures to prevent vascular dementia in patients at risk?

Figure. T1-weighted MRI showing a macroscopic infarction in the internal capsule adjacent to the left lateral ventricle.

a. hypertension should be treated (if present)
b. antiplatelet medication should be commenced (aspirin, clopidogrel, ticlopidine or dipyridamole)
c. warfarin should be given as first line therapy
d. subcutaneous heparin should be given routinely
e. antiplatelet medications should be used only if an abnormality is seen on CT

8. Which of the following are common problems that require attention in the rehabilitation period after a stroke?
a. risk of deep vein thrombosis in immobile patients
b. depression
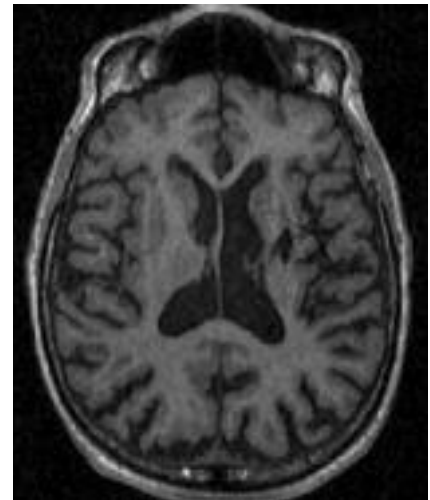c. risk of further stroke
d. muscle wasting
e. nutritional decline.

Reference

1. Brott T, Bogousslavsky J. Treatment of acute ischemic stroke. N Engl J Med 2000; 343(10): 710-722.

Answers appear on the inside back cover

Clinical quiz answers

(to questions on page 65)

1. a, b, c, d, e
Risk factors for stroke include hypertension, atrial fibrillation, heart failure and diabetes mellitus. Age over 65 years will also increase an individual's risk of stroke.

2. d
A TIA is defined as an episode in which signs or symptoms of a neurological event resolve in less than 24 hours.

3. c
In this case, the most likely diagnosis by far is a TIA in the distribution of the left carotid artery.

4. a, b
The most appropriate initial investigations in this case would be a CT scan of the brain and doppler studies of the carotid arteries.

5. a, b, c
This patient's risk of stroke is increased by her recent TIA and atrial fibrillation. She should have a CT scan to exclude intracerebral haemorrhage and a cardiac echo to look for thrombus (a transoesophageal cardiac echo should also be considered). She should be started on warfarin, which is more effective than aspirin in this situation, although there is a risk of complications.

6. d
The risk of completed stroke in people who have suffered a TIA is higher than that of controls, and is reported to be between 20 and 50% in the five years after the TIA.

7. a, b
The risk factors for vascular dementia are the same as the risk factors for stroke. Preventive measures include treatment of hypertension (if present) and use of antiplatelet medications.

8. a, b, c, d, e
All of these problems require attention in the rehabilitation period. Deep vein thrombosis is common. Depression is often overlooked, although it occurs in 10 to 30% of patients, and should be treated. Prophylactic treatment against further strokes is appropriate to reduce the risk of further neurological events – preventive measures should be employed, such as antiplatelet and antihypertensive medication. Physiotherapy to prevent muscle wasting is important, and patients who cannot swallow may benefit from a feeding tube or PEG. More than 50% of patients regain their independence through rehabilitation.