

## SINGAPORE MEDICAL COUNCIL CATEGORY 3B CME PROGRAMME

(Code SMJ 202005B)

**Question 1.** Regarding the hyperdense vessel sign:

- (a) It refers to focal increased attenuation of a vessel seen on both non-contrast and contrast-enhanced computed tomography of the brain.
- (b) It indicates a fresh clot caused by vessel occlusion.
- (c) High attenuation of a thrombus is due to extrusion of plasma in the thrombus with subsequent increase in the local haematocrit level.
- (d) Non-occluded large intracranial arteries and dural venous sinuses normally appear hypodense in relation to normal adult grey matter.

True      False

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**Question 2.** Regarding the hyperdense vessel sign:

- (a) It is most widely reported in the anterior cerebral artery.
- (b) It is one of the earliest radiological signs of acute ischaemic stroke.
- (c) It has high sensitivity and high specificity for arterial obstruction in acute ischaemic stroke.
- (d) It is usually subjectively identified in non-contrast computed tomography (NCCT) of the brain when a large intracranial artery appears denser than its contralateral counterpart or surrounding brain density.

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**Question 3.** Regarding cerebral venous thrombosis:

- (a) The superior sagittal sinus is the most commonly affected sinus.
- (b) Acute hemiparesis is the most common presentation of cerebral venous thrombosis.
- (c) Hyperdense thrombus in the occluded sinus is a classic finding of cerebral sinus thrombosis on NCCT of the brain.
- (d) Focal parenchymal abnormalities associated with cerebral venous thrombosis are seen in less than 10% of affected patients.

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**Question 4.** What are the mimics of the hyperdense vessel sign?

- (a) Intracranial vascular calcification.
- (b) Beam-hardening artefacts.
- (c) Pre-existing conditions that cause low haematocrit levels.
- (d) Hypoattenuation of surrounding brain parenchyma.

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**Question 5.** Regarding diagnostic pitfalls of the hyperdense vessel sign:

- (a) Utilisation of narrow window width in NCCT of the brain improves the detection of early ischaemic changes, including the hyperdense vessel sign.
- (b) Beam-hardening artefacts from bones most commonly cause the anterior cerebral arteries to appear hyperdense on NCCT of the brain.
- (c) The hyperdense vessel sign caused by vascular calcification is easy to confirm in most cases because of its high computed tomography attenuation that is close to that of bone.
- (d) Pseudosubarachnoid haemorrhage can be seen on NCCT of the brain of patients with polycythaemia.

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### Doctor's particulars:

Name in full: \_\_\_\_\_ MCR no.: \_\_\_\_\_  
 Specialty: \_\_\_\_\_ Email: \_\_\_\_\_

#### SUBMISSION INSTRUCTIONS:

Visit the SMJ website: <http://www.smj.org.sg/current-issue> and select the appropriate quiz. You will be redirected to the SMA login page.

**For SMA member:** (1) Log in with your username and password (if you do not know your password, please click on 'Forgot your password?'). (2) Select your answers for each quiz and click 'Submit'.

**For non-SMA member:** (1) Create an SMJ CME account, or log in with your SMJ CME username and password (for returning users). (2) Make payment of SGD 21.40 (inclusive of 7% GST) via PayPal to access this month's quizzes. (3) Select your answers for each quiz and click 'Submit'.

#### RESULTS:

(1) Answers will be published online in the SMJ July 2020 issue. (2) The MCR numbers of successful candidates will be posted online at the SMJ website by 8 July 2020. (3) Passing mark is 60%. No mark will be deducted for incorrect answers. (4) The SMJ editorial office will submit the list of successful candidates to the Singapore Medical Council. (5) One CME point is awarded for successful candidates. (6) SMC credits CME points according to the month of publication of the CME article (i.e. points awarded for a quiz published in the May 2020 issue will be credited for the month of May 2020, even if the deadline is in July 2020).

**Deadline for submission (May 2020 SMJ 3B CME programme): 12 noon, 1 July 2020.**