SINGAPORE MEDICAL COUNCIL CATEGORY 3B CME PROGRAMME

(Code SMJ 201610B)

	True	False
Question 1. Regarding magnetic resonance imaging (MRI) of the brachial plexus:		
(a) Disadvantages of the two-dimensional (2D) short tau inversion recovery (STIR) sequence include suboptimal spatial resolution, occurrence of pulsation artefacts, and poor discrimination between nerves and blood vessels.	☐	☐
(b) A STIR sequence is superior to a 2D T2-weighted spectrally adiabatic inversion recovery (SPAIR) sequence on 3T scanners as it has a better signal-to-noise ratio and demonstrates more uniform fat suppression in larger fields of view.	☐	☐
(c) Three-dimensional STIR sampling perfection with application-optimised contrasts using different flip angle evolution sequences allow multiplanar reconstructions along the longitudinal axis of a nerve, which can better demonstrate pathological changes in a nerve.	☐	☐
(d) Intravenous gadolinium-based contrast is routinely used in imaging of the brachial plexus.	☐	☐
Question 2. Regarding Seddon's classification of nerve injuries:		
(a) From least to most severe, the grades of nerve injury were termed neurotmesis, axonotmesis and neuropraxia.	☐	☐
(b) Wallerian degeneration occurs in neuropraxia and axonotmesis.	☐	☐
(c) In neuropraxia, conduction defects are temporary, with spontaneous and complete recovery.	☐	☐
(d) Spontaneous recovery is unlikely in neurotmesis and therefore it typically necessitates surgical repair.	☐	☐
Question 3. Regarding root avulsion injuries and preganglionic injuries of the brachial plexus:		
(a) Root avulsion injuries due to traction of the nerve roots most commonly affect the C5 to C7 nerve roots.	☐	☐
(b) Pseudomeningocoeles form when the epidural sleeve is pulled away from the spinal cord.	☐	☐
(c) On MRI, oedema of the adjacent spinal cord, with hyperintense signal on T2-weighted images, is a feature of root avulsion injuries.	☐	☐
(d) Susceptibility artefacts on haeme-sensitive sequences, reflecting haemorrhage in the nerve root or adjacent spinal cord, is a feature of root avulsion injuries.	☐	☐
Question 4. Regarding postganglionic injuries of the brachial plexus:		
(a) The majority of postganglionic injuries affect the roots and trunks.	☐	☐
(b) In the chronic phase of postganglionic rupture, atrophy of the supraspinatus and infraspinatus muscles may be seen.	☐	☐
(c) The continuity of the nerve is lost in neuropraxic postganglionic injury.	☐	☐
(d) Postganglionic nerve injuries usually have a better chance of functional recovery than preganglionic nerve injuries.	☐	☐
Question 5. Regarding neoplastic and radiation-induced brachial plexopathies:		
(a) Primary tumours of the brachial plexus are more prevalent than metastatic spread from other sites.	☐	☐
(b) On T2-weighted imaging, the 'target sign' is associated with schwannomas, while the 'fascicular sign' is associated with neurofibromas.	☐	☐
(c) Imaging features that favour benign lesions include large size, heterogeneous appearance and irregular borders.	☐	☐
(d) Radiation-induced brachial plexopathy can occur decades after treatment with radiotherapy.	☐	☐

Doctor's particulars:

Name in full : _____

MCR number : _____ Specialty: _____

Email address : _____

SUBMISSION INSTRUCTIONS:

(1) Visit the SMJ website: http://www.smj.org.sg/current-issue and select the appropriate set of questions. (2) Provide your name, email address and MCR number. (3) Select your answers and click "Submit".

RESULTS:

(1) Answers will be published online in the SMJ December 2016 issue. (2) The MCR numbers of successful candidates will be posted online at the SMJ website by 5 December 2016. (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.

Deadline for submission: (October 2016 SMJ 3B CME programme): 12 noon, 28 November 2016.