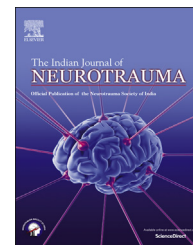


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## Neurotrauma quiz – December 2014<sup>☆</sup>

- According to the DECRA trial, which of the following statements about short-term outcomes among patients hospitalized with severe TBI who received bifronto-temporoparietal decompressive craniectomy vs standard care is not correct?
  - The craniectomy group had a high rate of surgical complications.
  - The craniectomy group had less time with intracranial pressures above the treatment threshold.
  - The craniectomy group had fewer interventions for increased intracranial pressure.
  - The craniectomy group had shorter duration of mechanical ventilation and fewer days in the intensive care unit.
- Young patient with severe TBI and intracranial hypertension refractory to first-tier treatments. According to the DECRA trial, which of the following outcomes would you most likely expect from bifrontotemporoparietal decompressive craniectomy vs standard care at 6 months?
  - Better score on the Extended Glasgow Outcome Scale.
  - Lower risk for an unfavorable outcome.
  - More than twice the risk for an unfavorable outcome.
  - Lower mortality risk.
- What is not true about Axonal injury.
  - May be seen on hematoxylin and eosin (H&E) staining after the first 6 h.
  - Axonal damage is microscopically evident after about 2 h post injury by immunohistochemical procedures.
  - Immunohistochemistry technique Uses beta-amyloid precursor protein immunostain.
  - With Immunohistochemical, all damaged axons readily stain and can be easily distinguished from normal axons.
- What is not True about Traumatic Brain Injury.
  - Cerebral Perfusion Pressure is related to CBF and is modifiable through its relationship with mean arterial pressure and intracranial pressure.
  - Current consensus guidelines recommend that CPP should be maintained between 50 and 70 mm Hg.
  - Good outcomes result if CPP is lower.
  - Adverse outcomes if CPP is higher.
- What is not true about Near-infrared Spectroscopy.
  - It is a non-invasive monitor of cerebral oxygenation.
  - It quantifies the relative concentrations of oxygenated and deoxygenated hemoglobin.
  - It has low temporal and spatial resolution.
  - The 'normal' range of cerebral oxygenation (rScO<sub>2</sub>) is usually stated to be 60–75%.
- What is not true about Cerebral MD.
  - It can detect impending cerebral ischemia/hypoxia.
  - It measures key brain energy substrates (glucose) and metabolites (lactate and pyruvate).
  - An increased lactate/pyruvate ratio in combination with low brain glucose is a sign of poor outcome.
  - An increased lactate/pyruvate ratio in combination with low brain glucose is a sign of good outcome.
- In Hyperosmolar therapy hypertonic saline has been shown to be an effective therapy for intracranial hypertension in children with Traumatic Brain Injury. Which statement is not correct Hyperosmolar therapy hypertonic saline?
  - Reversible renal insufficiency has been noted with the use of hypertonic saline when serum osmolality is lower.
  - Effective doses for acute use of 3% saline for intracranial hypertension range from 6.5 to 10 mL/kg.
  - Continuous infusion of 3% saline ranges from 0.1 to 1 mL/kg/h administered on a sliding scale.
  - Serum osmolality should be maintained at less than 360 mOsm/L.
- Which is not a likely complication of hypertonic saline administration?
  - Rebound intracranial hypertension after withdrawal of therapy.
  - Central pontine myelinolysis with rapidly increasing serum sodium levels.
  - Subarachnoid hemorrhage due to rapid shrinkage of the brain and tearing of bridging vessels.
  - Metabolic Alkalosis.
- What is not true for Mannitol in treatment for intracranial hypertension.
  - Mannitol is an osmolar agent with rapid onset of action via 2 distinct mechanisms.
  - The initial effects of mannitol result from reduction of blood viscosity and a reflex decrease in vessel diameter.
  - The initial effect of mannitol lasts for 15 min.
  - Second mechanism of action is through osmotic effects. This Action lasts up to 6 h.

<sup>☆</sup>The Key to this Neurotrauma Quiz can be found in online version of issue (December 2014).

10. Which of the following is NOT true about SCI?
- C5 is the most common level of tetraplegia.
  - T12 is the most common level of paraplegia.
  - Incomplete Paraplegia is the most common injury.
  - Most common cause of SCI is motor Vehicle accident.
11. What is the most common clinical cord syndrome in incomplete injuries?
- Anterior Cord.
  - Central Cord.
  - Cauda Equina.
  - Brown Sequard.
12. Which of the following is not true regarding anterior cord syndrome?
- loss of motor below level.
  - loss of proprioception/vibration.
  - loss of pain and temp.
  - flexion injury.
13. Which statement accurately describes a Brown Sequard syndrome?
- Asymmetric injury with ipsilateral loss of motor function and sensation and contralateral loss of pain and temperature.
  - Symmetrical injuries with loss of motor function bilaterally.
  - Asymmetric injury with ipsilateral loss of pain and temperature and contralateral loss of motor function and sensation.
  - Loss of awareness, but preserved motor, pain, temperature, and light touch.
14. How do you know a patient is out of spinal shock?
- Return of DTRs is first sign.
  - Return of bulbocavernosus reflex.
  - Return of motor function below lesion level.
  - Return of Sensory function at the level of incision.
15. Which is true of bulbocavernosus reflex?
- Mediated by S1-3.
  - Is only present during spinal shock.
  - Elicited by pressure on anal sphincter.
  - Is negative if contraction of anal sphincter occurs.

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Key to Neurotrauma Quiz – December 2014		
Number	Question	Key
1	According to the DECRA trial, which of the following statements about short-term outcomes among patients hospitalized with severe TBI who received bifrontotemporoparietal decompressive craniectomy vs standard care is not correct?	a
2	Young patient with severe TBI and intracranial hypertension refractory to first-tier treatments. According to the DECRA trial, which of the following outcomes would you most likely expect from bifrontotemporoparietal decompressive craniectomy vs standard care at 6 months?	c
3	What is not true about Axonal injury?	a
4	What is not true about Traumatic Brain Injury?	c
5	What is not true about Near-infrared Spectroscopy?	c
6	What is not true about Cerebral MD?	c
7	In Hyperosmolar therapy hypertonic saline has been shown to be an effective therapy for intracranial hypertension in children with traumatic brain injury. Which statement is not correct Hyperosmolar therapy hypertonic saline?	a
8	Which is not a likely complication of hypertonic saline administration?	d
9	What is not true for Mannitol in treatment for intracranial hypertension?	c
10	Which of the following is NOT true about SCI?	c
11	What is the most common clinical cord syndrome in incomplete injuries?	b
12	Which of the following is not true regarding anterior cord syndrome?	b
13	Which statement accurately describes a Brown Sequard syndrome?	a
14	How do you know a patient is out of spinal shock?	b
15	Which is true of bulbocavernosus reflex?	a