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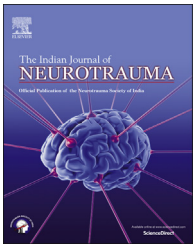

Neurotrauma quiz – December 2014☆

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. The craniectomy group had a high rate of surgical complications.
   b. The craniectomy group had less time with intracranial pressures above the treatment threshold.
   c. The craniectomy group had fewer interventions for increased intracranial pressure.
   d. The craniectomy group had shorter duration of mechanical ventilation and fewer days in the intensive care unit.
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?
   a. Better score on the Extended Glasgow Outcome Scale.
   b. Lower risk for an unfavorable outcome.
   c. More than twice the risk for an unfavorable outcome.
   d. Lower mortality risk.
3. What is not true about Axonal injury.
   a. May be seen on hematoxylin and eosin (H&E) staining after the first 6 h.
   b. Axonal damage is microscopically evident after about 2 h post injury by immunohistochemical procedures.
   c. Immunohistochemistry technique Uses beta-amyloid precursor protein immunostain.
   d. With Immunohistochemical, all damaged axons readily stain and can be easily distinguished from normal axons.
4. What is not True about Traumatic Brain Injury.
   a. Cerebral Perfusion Pressure is related to CBF and is modifiable through its relationship with mean arterial pressure and intracranial pressure.
   b. Current consensus guidelines recommend that CPP should be maintained between 50 and 70 mm Hg.
   c. Good outcomes result if CPP is lower.
   d. Adverse outcomes if CPP is higher.
5. What is not true about Near-infrared Spectroscopy.
   a. It is a non-invasive monitor of cerebral oxygenation.
   b. It quantifies the relative concentrations of oxygenated and deoxygenated hemoglobin.
   c. It has low temporal and spatial resolution.
   d. The 'normal' range of cerebral oxygenation (rScO2) is usually stated to be 60–75%.
6. What is not true about Cerebral MD.
   a. It can detect impending cerebral ischemia/hypoxia.
   b. It measures key brain energy substrates (glucose) and metabolites (lactate and pyruvate).
   c. An increased lactate/pyruvate ratio in combination with low brain glucose is a sign of poor outcome.
   d. An increased lactate/pyruvate ratio in combination with low brain glucose is a sign of good outcome.
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. Reversible renal insufficiency has been noted with the use of hypertonic saline when serum osmolality is lower.
   b. Effective doses for acute use of 3% saline for intracranial hypertension range from 6.5 to 10 mL/kg.
   c. Continuous infusion of 3% saline ranges from 0.1 to 1 mL/kg/h administered on a sliding scale.
   d. Serum osmolality should be maintained at less than 360 mOsm/L.
8. Which is not a likely complication of hypertonic saline administration?
   a) Rebound intracranial hypertension after withdrawal of therapy.
   b) Central pontine myelinolysis with rapidly increasing serum sodium levels.
   c) Subarachnoid hemorrhage due to rapid shrinkage of the brain and tearing of bridging vessels.
   d) Metabolic Alkalosis.
9. What is not true for Mannitol in treatment for intracranial hypertension.
   a) Mannitol is an osmolar agent with rapid onset of action via 2 distinct mechanisms.
   b) The initial effects of mannitol result from reduction of blood viscosity and a reflex decrease in vessel diameter.
   c) The initial effect of mannitol lasts for 15 min.
   d) Second mechanism of action is through osmotic effects. This Action lasts up to 6 h.

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