

IAP Neonatology Chapter Fellowship Exam: August 2015

Paper I (Total pages 4)

Maximum marks 100

Time: 3 hours

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Note:

- Attempt each question on a new page.
  - Attempt MCQ on separate answer sheet.
1. Short notes: (5 marks each)
    - a) Delayed cord clamping
    - b) Management of cholestatic infant
    - c) Management of hyperammonemia
    - d) Strategies to prevent medication errors in NICU
  2. Discuss emergency evaluation and stabilization for newborn with suspected inborn error of metabolism? (5+5)
  3. Discuss the rationale, components and implementation for home based newborn care. (2+6+2)
  4. Describe a) Clinical score b) Role of neuro-imaging c) Predictors of outcome for a newborn with hypoxic ischemic encephalopathy. (2+4+4)
  5. Describe evidence based antenatal interventions for decreasing perinatal mortality (10)
  6. Discuss best potential practices to minimize preterm brain injury (10)

PAPER 1.....MCQ

(Total marks 30. All questions carry 2 marks. No negative marking.)

- 1) 1 day infant who was born by a difficult forceps delivery is alert and active. She doesn't move her left arm and keeps it internally rotated by her side with the forearm extended and pronated. Which of the following is an expected clinical finding?
  - a) Intact Moro and grasp reflex.
  - b) Absent Moro and grasp reflex.
  - c) Intact Moro and absent grasp reflex
  - d) Absent Moro and intact grasp reflex.
  
- 2) The mother of a 2 week old infant reports that her baby sleeps most of the day, she has to awaken her every 4 hours to feed and the infant has persistently hard stool . On examination, HR 100/m and temp. Is 35.5 C, baby is still jaundiced and has a distended abdomen. What is the most appropriate diagnostic test ?
  - a) Screening tests for Inborn error of metabolism
  - b) Sepsis screen and blood culture.
  - c) Total and direct serum bilirubin
  - d) T4 and TSH
  
- 3) A 7 day old male infant presents with a seizure. Serum glucose is 17 mg/dL. Examination is normal with exception of jaundice and microphallus. The most likely diagnosis is:
  - a) Congenital toxoplasmosis
  - b) Congenital hypopituitarism
  - c) Nonketotic hypoglycemia
  - d) Infantile spasms
  
- 4) A term, 1 month old, well infant is breast fed since birth. His weight is 4 kg. The mother is giving the feeds on demand. She is not giving any vitamin or iron supplementation. He passed 4 greenish stools/day. What should be of most concern about this infant?
  - a) Stool pattern.
  - b) Caloric intake.
  - c) Iron levels.
  - d) None of the above.

- 5) The following condition can be treated by giving medication to the mother:
- Fetal ventricular tachycardia
  - Accelerating oxygen extraction by using antenatal steroids.
  - Reducing the risk of kernicterus in Rhesus Disease by giving fetal blood transfusions through the umbilical vein.
  - Atropine to treat fetal congenital heart block.
- 6) The following drugs given in labour can cause adverse effects in the fetus:
- Diazepam – hypotension
  - Oxytocin - fetal hypoxia
  - IV fluids - neonatal hyponatraemia
  - All of the above
- 7) Regarding the interpretation of blood gas which is the correct statement-
- The base excess or deficit in the ABG is a measured value
  - The presence of air bubble in the ABG sample will cause change in the pH
  - The concentration of heparin preferred is 500 U/ml
  - The presence of excess heparin in the sample will cause increase in PaO<sub>2</sub>
- 8) Identify the incorrect teratogenic effect:
- Alcohol- IUGR, microcephaly, ocular abnormalities
  - Methimazole – Scalp defects
  - Valproate – Cranial defects
  - Lithium – Heart and great vessel defects
- 9) One of the common imprinting disorders in the neonates is:
- Cornelia de Lange syndrome
  - Beckwith – Weideman syndrome
  - DiGeorge syndrome
  - Fanconi syndrome
- 10) Of the following the CHD most associated with poorly controlled maternal diabetes during the fetal organogenesis is:
- Coarctation of aorta
  - Pulmonary infundibular stenosis
  - Tetralogy of Fallot
  - Transposition of great arteries

11) All the conditions present with acute encephalopathy except:

- a) Hyperammonemia
- b) Fatty acid oxidation disorder
- c) Molybdenum co factor deficiency
- d) Maple syrup urine disease

12) A 29 weeks male baby weighing 890 grams was born to a mother with severe PE. The Doppler was suggestive of REDF in umbilical artery. On day 2 of life this baby presents with temperature instability, apnoea, abdominal cellulitis, Hypotension and a fixed bowel gas on the abdominal x ray. What is the stage of NEC in this baby?

- a) Stage I B
- b) Stage II A
- c) Stage III A
- d) Stage III B

13) You wish to determine the incidence and natural course of BPD in preterm neonates. The best study design to address this question is:

- a) Case control study
- b) Cross sectional study
- c) Prospective cohort study
- d) Randomized control trial

14) All are true regarding gastroschisis except

- a) It occurs due to defect in the abdominal wall more common on the right side.
- b) The intestinal loops are always normal.
- c) The herniation of liver along with the loops of intestine is not common.
- d) Can be detected antenatally as early as 12 weeks of gestation.

15) Regarding the development of the brain, the most accurate statement is

- a) Neuronal migration peaks at 3-5 months of gestation.
- b) Schizencephaly and polymicrogyria are disorders of neuronal proliferation
- c) Migration occurs from out to inside pattern
- d) Primary neuroelation occurs at 2-3 months of gestation