IAP Neonatology Chapter

IAP Neonatology Fellowship Exam March 2023

Theory Paper 2

Time: 3hours **Total Marks–100**

- Attempt all questions.
- Write in legible handwriting.
- Draw appropriate figures and flow diagrams
- Quote evidence / studies wherever required.

Question 1: You are called to attend a delivery of a 27 years old primigravida with antenatally diagnosed left sided congenital diaphragmatic hernia (CDH)

a. What relevant information you get from obstetrician will help in managing and prognosticating this baby?(5)
b. Describe delivery room management for this baby. (5)
c. Describe clinical phenotypes of CDH and explain briefly preoperative stabilization of this baby based on various presentations.(5)
d. If parents request discontinuation of treatment due to financial reasons and due to uncertainty of outcome, how will you counsel them? (5)

Question 2: A 32-year pregnant woman with well controlled gestational diabetes is delivered by elective LSCS at 36 weeks in view of previous IUD at 37 weeks. The baby develops respiratory distress soon after birth and is shifted to NICU.

a. Is it justifiable to deliver the bay at 36 weeks in such a situation? When would you like to deliver this mother if she does not go into labor? (5)
b. Would giving antenatal steroids in such a mother help in decreasing the risk of complications in the newborn? (5)
c. Define late preterm and early term. What are the short-term risks to the neonate born at these gestations? (5)
d. What are the long-term risks associated with elective delivery at less than 39 weeks gestation in the absence of maternal or fetal complications? (5)

Question 3: An Rh negative mother, third gravida, with immune hydrops in second pregnancy comes to you for preconceptional counselling.

a. Enumerate the investigations you would undertake along with their timing to assess the risk in the subsequent pregnancy (5)
b. What is the role of anti-D administration in this mother in the subsequent pregnancy? (2)

c. What interventions you will suggest for the fetus should the fetus be iso-immunised? (2)
d. At birth baby is found to be severely anemic (Hb: 6 g/dl) but DCT is negative. Can you give any explanation for the same other than lab error? (2)
e. How will you manage the baby? (4)
f. What is the role of IVIG and albumin priming prior to exchange transfusion in isoimmunised babies? (5)

Question 4: A baby girl is born at 32 weeks of gestation, birth weight of 850 grams by emergency LSCS with history of maternal PIH and antenatal scan suggestive of oligohydramnios and reverse end diastolic flow in umbilical artery doppler. Baby developed respiratory distress and is on CPAP.

a. Enumerate evidence based enteral feeding strategy for this baby. (5)
b. Describe oral colostrum care and its advantages. (5)
c. Enlist the risk factors for NEC; and discuss the preventive strategies of NEC (5)
d. Discuss the role of imaging in diagnosis of NEC? (5)

Question 5: A 30-day preterm baby born at 28 weeks of gestation with a birth weight of 880 g is on low flow oxygen with FiO_2 of 25%. His heart rate is 146/min with 12g/kg/day weight gain in the last week on full enteral feeds by orogastric tube. On evaluation PCV is 23% with reticulocyte count of 1. His blood group is A +ve. Mothers blood group is O+ve.

a. Diagnostic approach to anaemia in neonates. (5)
b. Discuss the pathophysiology of anaemia of prematurity in neonates. (5)
c. Enlist the measures to reduce multiple donor exposure in preterm neonates. Discuss the evidence for restricted vs liberal PRBC transfusion strategy for preterm neonates? (2+3)
d. Complications of PRBC transfusion in preterm neonates. (5)