Questions and answers

Fernando Raffán Sanabria\textsuperscript{a,b,*}

\textsuperscript{a} Anesthesiologist and Intensivist, University Hospital Fundación Santa Fe de Bogotá
\textsuperscript{b} Professor, Universidad el Bosque and Universidad de los Andes, Bogotá, Colombia

This section includes questions prepared on the basis of the contents of the articles published in volume 40, number 4 of the Colombian Journal of Anesthesiology. Accept the challenge to test your reading comprehension and knowledge.

Instructions

This is a multiple-choice questionnaire. Please mark the appropriate answer.

1. Risk factors associated to complications of radial artery cannulation include the following, except:
   A. Prolonged time with an arterial line in place (over 72 hours)
   B. Catheter material
   C. Use of vasoactive drugs
   D. Female gender

2. In terms of catheterization of the radial artery, which of the following statements is true?
   A. The puncture method (direct or transfixed) has not been associated to an increased risk of thrombosis
   B. Arterial catheters inserted with the seldinger technique have shown a significant reduction in the incidence of ischemic complications when compared against the direct puncture technique, without using a guide
   C. The cutting point that increases the risk of complications is being over 70 years old
   D. Allen’s test performed before the puncture is a good predictor of ischemia in the absence of vascular disease

3. Studies in patients undergoing myocardial revascularization have shown an increased development of hyperplasia, calcification and atheromatosis of the radial artery in patients with:
   A. More than 50 years of age
   B. Hypothyroidism
   C. Alcoholism
   D. Female gender

4. When considering the lesion from red cell storage, which of the following distractors is false:
   A. Those stored for less than 14 days are called young
   B. When units stored longer than 14 days are administered, mortality increases if the units are not leukoreduced
   C. Trauma patients receiving units stored for over 2 weeks stay longer with mechanical ventilation in the ICU and exhibit a higher frequency of septic episodes
   D. The storage lesion is associated with a decrease in 2-3 diphosphoglycerate and a significant increase in antioxidant release after the second week of storage

5. Fetal surgery is a rapidly progressing medical area; with regards to the development of pain pathways in the fetus, the following statement is false:
   A. Peripheral pain receptors start developing during the seventh week of gestation
   B. During the eighth week of gestation, the afferent fibers that communicate the peripheral receptors with the gelatinous substance start developing
   C. The hypothalamic – pituitary adrenal cortex system becomes functional as of the the beginning of the third trimester
   D. The serotonin – mediated descending inhibitory system of pain only develops after birth

6. In terms of intraoperative management during fetal surgery, fluid management has to be rational since the
amount of fluid associated with pulmonary edema is above:
A. 500 cc
B. 1000 cc
C. 1500 cc
D. 2000 cc

7. With regards to the management of anesthesia for emergency cesarean section, a systematic literature review by Fuentes JB, Pinzón CE, Vasco M, report the following, except:
A. In a patient with epidural catheter for labor requiring extended anesthesia for cesarean section, the drug of choice is 2% lidocaine
B. Adding adrenalin to lidocaine decreases the latency of the local anesthetic agent
C. The use of bicarbonate as an adjuvant to 2% lidocaine decreases the latency and improves the quality of the block
D. The type of anesthesia delivered to the mother does not affect the long-term neonatal outcomes

8. Of the following definitions, which is inconsistent with the term massive transfusion
A. The need to transfuse more than 10 units in 24 hours
B. The need to transfuse more than 4 units in one hour
C. Replacing more than 50% of the blood volume in 3 hours
D. Using 5 units of red blood cells in 4 hours

9. Referring to neuromuscular monitoring using blockers, which of the following statements is false
A. The recovery phase is defined as the start of the fourth response of the train of four and the establishment of the train of four ratio (T4/T1)
B. A simple stimulus is defined as the administration of supramaximum stimuli at a frequency ranging between 1 - 0.1Hz
C. The normalization of a train of four ratio of 0.8 against the baseline is considered to ensure adequate recovery of the neuromuscular block
D. Post-tetanic count is a useful tool for assessing deep blockade

10. The following echocardiographic parameters assess the right ventricular systolic function, except:
A. Displacement of the tricuspid ring
B. Change in the fractional area
C. Right Tei-index
D. Right Ventricular Systolic Work Index

References

Answers:
1. A
2. A
3. A
4. B
5. C
6. B
7. C
8. D
9. C
10. D