CONTINUING EDUCATION TEST: Iodinated Contrast Media and Their Adverse Reactions

1. Which of the following is MOST prone to causing contrast reactions?
   A. Nonionic monomer.
   B. Nonionic dimer.
   C. Ionic monomer.
   D. Ionic dimer.

2. Which of the following statements is FALSE?
   A. Nonionic contrast media are safer than ionic contrast media.
   B. Reaction rates are proportional to the amount of iodine administered.
   C. Intravenous injection has a higher reaction rate than intraarterial injection.
   D. The mortality rate from high-osmolality contrast media (HOCM) and low-osmolality contrast media (LOCM) is about the same.
   E. Most reactions occur about 20 min after contrast administration.

3. Regarding anaphylactoid reactions, which is FALSE?
   A. They happen by a similar mechanism to allergic reactions.
   B. They usually occur between 1 and 48 h after administration.
   C. They occur more commonly with HOCM.
   D. They are the most frequent and cause mortality.

4. Regarding nonanaphylactoid reactions, which is TRUE?
   A. Chemotoxic reactions are more common with nonionic contrast media.
   B. Chemotoxic reactions can cause cardiac arrhythmias.
   C. Vasovagal reactions cause tachycardia and hypotension.
   D. Reactions always present in either anaphylactoid or nonanaphylactoid forms.

5. Which of the following is NOT associated with risk for contrast reactions?
   A. Renal failure.
   B. Multiple myeloma.
   C. β-blockers.
   D. Heart failure.
   E. Pneumonia.
   F. Use of metformin in diabetic patients.

6. Which is NOT a relative contraindication to premedication with corticosteroid?
   A. Patient with active tuberculosis.
   B. Patient with metastatic colon cancer.
   C. Patient with peptic ulcer disease.
   D. Patient with acute leukemia.

7. Which is NOT used to treat urticaria?
   A. H₁ blocker: diphenhydramine.
8. Which will you NOT use if a patient has a low blood pressure reading and an increased heart rate?
   A. Epinephrine, 1:1,000 subcutaneously.
   B. Epinephrine, 1:10,000 intravenously.
   C. Intravenous fluids.
   D. Head-down position.

9. A patient experiences convulsions after receiving contrast. What would you do?
   A. Call the emergency medical team.
   B. Check the pulse, start an intravenous line, call the emergency medical team.
   C. Maintain a patent airway, monitor vital signs, call the emergency medical team, start an intravenous line.
   D. Panic!

10. Nephrotoxicity is related to all EXCEPT…
    A. Systemic lupus erythematosus.
    B. Non–insulin-dependent diabetes mellitus.
    C. Multiple myeloma.
    D. β-blockers.
    E. Metformin therapy.

11. A patient has a decreased heart rate and low blood pressure. Which is WRONG?
    A. The effect is caused by vagal stimulation.
    B. Treatment options include β-blockers.
    C. Treatment options include atropine.
    D. Treatment options include the head-low position.
    E. The effect may be seen in more anxious patients.

12. Regarding extravasation of iodinated contrast media, which is FALSE?
    A. Consequences are severe, even with small-volume extravasation.
    B. Documenting site and volume are important.
    C. Always monitor the pulse distal to the injection site.
    D. Extravasation is more common in children, the elderly, and those with vascular disease.

13. Regarding preparation for contrast media, which is FALSE?
    A. Shellfish allergy is NOT an absolute contraindication to iodinated contrast.
    B. Patients receiving biguanides should stop taking them for 48 h after administration.
    C. Premedication is absolutely preventive against reactions.
    D. Patients with renal disease should be given contrast only after consultation with the patient’s physician and radiologist.
14. Regarding delayed reactions, which of the following is TRUE?
   A. They often present as acute shortness of breath.
   B. They are more common with nonionic dimers.
   C. They require immediate hospitalization.
   D. They are associated with high morbidity and mortality.

15. Which of the following is TRUE regarding contrast media in pregnancy and breast-feeding?
   A. Contrast agents do not cross the placenta and are safe in pregnancy.
   B. Breast-feeding should be withheld for 5 d after contrast examination.
   C. Iodinated contrast agents can cause thyroid disorders in the fetus and newborn.
   D. Iodinated contrast agents are absolutely contraindicated in pregnancy.