IAEA/ESNM Webinar Series on Paediatric NM
Myocardial Perfusion Scintigraphy in Paediatric Cardiology

Self-assessment questions

Q1: Which is the main peculiarity for myocardial perfusion scintigraphy in paediatric patients when confronted with adults?
1. Radiopharmaceuticals
2. Disease spectrum
3. Acquisition timing
4. All of the above
5. None of the above

Answer: 2

Q2: Which stressor is more indicated in neonates and infants:
1. Bicycle ergometric stress
2. Treadmill test
3. Dipyridamole stress
4. Adenosine stress
5. Dobutamine stress

Answer: 4

Q3: Which interfering drugs and/or substances must be interrupted before an adenosine test in children?
1. Diuretics
2. beta-blockers
3. Coffeine containing foods/beverages/medicaments
4. All of the above
5. None of the above

Answer: 3

Q4: Which are contraindications to adenosine testing?
1. Asthma/wheezing
2. Epilepsy
3. Recent history of chest pain at rest
4. All of the above

Answer: 1
Q5: How long does last adenosine infusion for myocardial perfusion scintigraphy in children?
1. 3 minutes
2. 6 minutes
3. 9 minutes
4. 12 minutes

Answer: 2

Q6: What is the timing for 99mTc-MIBI injection in adenosine testing?
1. Immediately after the start of adenosine infusion
2. 3 minutes after the start of adenosine infusion
3. At the end of adenosine infusion
4. 3 minutes after the end of adenosine infusion

Answer: 2

Q7: Which tracer(s) is/are indicated for myocardial perfusion scintigraphy in children?
1. 99mTc-MIBI
2. 99mTc-tetrofosmin
3. 201Tl
4. a&b
5. b&c
6. a&c

Answer: 4

Q8: Which of the following is true?
1. 99mTc-MIBI/99mTc-tetrofosmin should be acquired 90 minutes after injection in neonates and infants
2. 99mTc-MIBI/99mTc-tetrofosmin should be acquired between 30-45 minutes after injection in children up to 6 years of age
3. 99mTc-MIBI/99mTc-tetrofosmin should not be acquired later than 60 minutes after injection in neonates and infants.
4. none of the above

Answer: 1

Q9: Which of the following is true?
1. Myocardial perfusion SPECT is not indicated in children with chest pain
2. Myocardial perfusion SPECT is not indicated in children without a definite diagnosis of cardiac malformation
3. Myocardial perfusion SPECT is indicated only in children with a suspected/defined diagnosis of coronary artery malformation
4. None of the above

Answer: 4
Q10: The best collimator for myocardial perfusion SPECT in children is
1. low-energy general purpose parallel hole collimator
2. low-energy high resolution parallel hole collimator
3. pin-hole collimator with 3 mm insert
4. a or c

Answer: 2