SELF ASSESSMENT QUESTIONS WITH CODING, RATIONALE & REFERENCES

Lecture 1: Coronary CTA in the ED, Ricardo C. Cury, MD

QUESTION 1: HOW DOES A STRATEGY WITH CTA COMPARE TO STANDARD OF CARE IN THE ER SETTING?

Response 1: More expensive
Response 2: Increase time to diagnosis of ACS
Response 3: Less safe
Response 4: Decrease length of stay in the hospital

Correct Answer = Response 4

Goldestein et al. JACC 2011

QUESTION 2: WHAT IS THE SENSITIVITY OF CORONARY CTA TO DETECT PATIENTS WITH ACS?

Response 1: 85%
Response 2: 95%
Response 3: 99%
Response 4: 65%

Correct Answer = Response 2

References: Cury RC et al. Journal of Nuclear Cardiology 2011;18;331-41

Lecture 2: Prognostic Value of Coronary CTA, James K. Min, MD

QUESTION 3: Which of the following atherosclerotic plaque characteristic pairs has been demonstrated to be associated with incident acute coronary syndromes?

1) low attenuation plaque and positive arterial remodeling
2) high attenuation plaque and positive arterial remodeling
3) low attenuation plaque and negative arterial remodeling
4) high attenuation plaque and negative arterial remodeling

Correct Answer = 1

Rationale: Motoyama demonstrated in both retrospective and prospective studies that low attenuation plaques exhibiting positive arterial remodeling prognosticate those plaques which subsequently result in acute coronary syndromes. Each of the plaques that caused ACS in this study were <75% stenosis.

References:
QUESTION 4: In the multicenter PROSPECT study, which of the following was most prognostic of future major adverse cardiac events?

1) thin cap fibroatheroma
2) thin cap fibroatheroma and a minimal luminal area ≤ 4.0mm²
3) thin cap fibroatheroma and plaque burden ≥ 70%
4) thin cap fibroatheroma and plaque burden ≥ 70% and a minimal luminal area ≤ 4.0mm²

Correct Answer = 4

Rationale: Stone and colleagues identified a number of additional atherosclerotic plaque characteristics that forebode future major adverse cardiac events. The addition of information derived from plaques that exhibit thin cap fibroatheroma, high plaque burden and low minimal luminal area forebode increased risk of future MACE.

References:

Lecture 3: Myocardial CT Perfusion, Ricardo C. Cury, MD

QUESTION 5: What is the typical appearance of inducible myocardial ischemia during CT/ MRI perfusion imaging and delayed enhancement imaging, respectively?

Response 1: Hypo-perfusion and no evidence delayed hyper-enhancement
Response 2: Hypo-perfusion and delayed hyper-enhancement
Response 3: Hyper-perfusion and no evidence delayed hyper-enhancement
Response 4: Hyper-perfusion and delayed hyper-enhancement

Correct Answer = Response 1

References:


QUESTION 6: The addition of myocardial CT perfusion as compared to Coronary CT Angiography to detect obstructive CAD leads to a increase in:

Response 1: Sensitivity
Response 2: Negative predictive value
Response 3: Positive predictive value
Response 4: False positive

Correct Answer = Response 3

References: