QI&CPD Accredited Activity CATEGORY 2

Questions for this month's clinical challenge are based on articles in this issue. The clinical challenge is endorsed by the RACGP Quality Improvement and Continuing Professional Development (QI&CPD) program and has been allocated four Category 2 points (Activity ID: 114602). Answers to this clinical challenge are available immediately following successful completion online at http://gplearning.racgp.org.au. Clinical challenge quizzes may be completed at any time throughout the 2017–19 triennium; therefore, the previous months' answers are not published.

Each of the questions or incomplete statements below is followed by four suggested answers or completions. Select the most appropriate statement as your answer.

Clinical challenge

Case 1

Tessa, 20 years of age, presents with chest pains of 10 hours duration. She was last at your clinic one month ago with gastroenteritis.

Question 1

Chest pain most characteristic of pericarditis is:

A. mild, central and radiates into the neck
B. heavy, central and worse on lying down
C. sharp, retrosternal and worse on inspiration
D. dull, retrosternal and worse on leaning forward.

Question 2

Which one of the following is the most common cause of pericarditis in Australia?

A. Autoimmune
B. Idiopathic
C. Bacterial
D. Neoplastic

Case continued

Following examination, electrocardiography and pathology tests, Tessa is diagnosed with viral pericarditis. She is prescribed medication and advised to refrain from strenuous activity until her symptoms have resolved.

Question 3

What is the most appropriate medication for acute viral pericarditis?

A. Ibuprofen
B. Omeprazole
C. Paracetamol
D. Prednisolone

Case continued

Tessa returns the following day feeling short of breath and still complaining of retrosternal chest pain. On examination, her blood pressure is 110/70 mmHg, heart rate is 120 beats per minute and temperature is 38.1°C. She has a scratching, velcro-like sound at the left lower sternal border on expiration, with clear heart sounds. The rest of the examination is normal.

Question 4

On the basis of this presentation, which one of the following is the most likely diagnosis?

A. Pericardial tamponade
B. Bacterial pericarditis
C. Pericardial effusion
D. Autoimmune pericarditis

Case 2

Jack, 88 years of age, presents to your clinic with chest heaviness of two hours duration, radiating to the left arm and neck. Jack is accompanied by his grandson and, in keeping with his prior wishes about management of any life-threatening conditions, he steadfastly refuses ambulance transfer or hospitalisation. He asks you to confirm his suspicions that he is having a heart attack. A 12-lead electrocardiogram (ECG) shows no new changes, and you decide to order troponin serology.

Question 5

Which one of the following effects on the myocardium is the cause of raised troponin in the circulation in an acute myocardial infarction?

A. Contraction
B. Neogenesis
C. Excitation
D. Necrosis

Question 6

Which one of the following conditions is least likely to result in a raised troponin?

A. Aortic valve disease
B. Pulmonary hypertension
C. Atrial fibrillation
D. Infiltrative lung disease

Case continued

Brian, a first-year medical student observing you today, wonders whether Jack has a pulmonary embolus rather than a cardiac cause for his presentation.

Question 7

Which of the following conditions is the least likely to increase the risk of pulmonary embolism?

A. Varicose veins
B. Lymphoma
C. Osteoporosis
D. Heart failure

Question 8

Which of the following history findings is included in Well's criteria for pre-test probability for pulmonary embolism?

A. Symptoms of upper limb deep vein thrombosis (DVT)
B. Previously diagnosed DVT
C. Immobilisation within the last month
D. Travel within the last month

Question 9

Which of the following history findings is included in the Pulmonary Embolism Rule-out Criteria (PERC) rule?

A. Testosterone use
B. Dyspnoea
C. Immobilisation
D. Haemoptysis

Question 10

Which one of the following diagnostic tests is most appropriate when there is a strong pre-test probability of pulmonary embolus?

A. Computed tomography pulmonary angiogram (CTPA)
B. CT chest
C. D-dimer test
D. Venous ultrasound