NHS
Mersey and West Lancashire Teaching Hospitals
NHS Trust

Myocarditis

Myocarditis

- Inflammation of the myocardium in the absence of ischaemia.
- Usually infectious (mainly viral) – less frequently due to other causes (toxins/drugs, systemic inflammatory disorder, sarcoidosis)
- Often preceded by flu-like illness 7 – 14 days prior to presentation.
- Raised Troponin

Signs & Symptoms

- Chest pain
- Fatigue/Malaise
- SOB
- Tachycardia
- +/- fever
- Palpitations
- Arthralgia
- Congestive heart failure
- Cardiogenic shock

Investigations

- ECG
  - Sinus tachycardia — Non-specific ST elevation
  - T wave changes — Broad QRS complexes
  - Tachy-arrhythmia — Variable degrees of AV block
- CXR
- Bloods: FBC/CRP/Troponin, consider autoimmune screen (if clinically appropriate)
- ECHO; (contact cardiorespiratory on ext. 1428 for availability)
- Viral serology (HIV, HSV, adenovirus, coxsackie B, influenza)
- Consider other differential diagnoses (such as ACS, PE, Ao dissection) and rule out when appropriate.

Management

- Admit to:
  - a cardiac monitor bed on CCU if signs of HF, arrhythmia, or hypotension
  - a cardiac monitor bed on 1D ward if none of the above
- Restriction of physical activity beyond sedentary lifestyle
- Often conservative and supportive
- May benefit from:
  - Colchicine 500mcg bd (if there is associated pericarditis)
  - Ace-I (Ramipril 1.25mg OD) if clinical signs of HF (or LVEF <50% on echo)
  - Beta-blocker (Bisoprolol 1.25mg OD) in haemodynamically stable patients with no signs of acute heart failure
  - Inotropes if in shock, IV amiodarone if sustained VT or steroids (only after discussion with cardiologist on call)
- Discuss with cardiology consultant on call (via switch) if poor LVSF on echo, heart failure symptoms, significant rhythm abnormality, hypotension/cardiac shock, or signs of fulminant myocarditis.

Complications: Arrhythmias, cardiogenic shock, dilated cardiomyopathy

Fulminant Myocarditis: may need inotropic/mechanical circulatory support.

Pericarditis

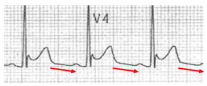
Pericarditis

- Inflammation of the pericardium secondary to infection/localised injury or systemic disorders
- Might be associated with flu-like prodrome.
- Troponin often normal

Signs & Symptoms

- Chest pain
  - Sharp, dull, burning.
  - Radiation to trapezius ridge
  - Worse on inspiration/lying flat/movement.
  - Relieved on sitting forward.
- SOB
- +/- Fever
- Tachypnoea
- Tachycardia

Investigations

- ECG
  - Concave ST elevation
  - PR depression in limb leads (II, III, avL, avF & V2-6)
  - Reciprocal ST depression and PR elevation in avR (+/- V1)
  - Spodick sign: 

  - Sinus tachycardia
- CXR and bloods: FBC/CRP/Troponin
- Echo (ext. 1428):
  - Inpatient if: new breathlessness, orthopnoea, tachycardia, low BP, acute trauma, or if ED bedside ECHO shows effusion
  - In the absence of any of the above request an “urgent OP echo” and give patient safety net advice to return of more breathless or unwell.

Management

- Restriction of physical activity beyond sedentary lifestyle
- NSAIDS (WITH PPI Cover)
  - Ibuprofen 600-800mg TDS 1-2/52 (reduce by 200mg per week)
    OR
  - Aspirin 750-1000mg 8hrly (reduce by 250mg per week)
- Colchicine 500mcg BD for 3/12 (500mcg od if <70kg)
- Treat underlying cause
- Discharge if well, no worsening chest pain, hemodynamically stable, no effusion on bedside ECHO, and no troponin rise.
- Consider OP cardiology referral (for OP TTE, if not done as IP)
- Admit/refer to Cardiology if presenting with recurrent pericarditis.