Acute Pericarditis

1. Describe the condition7

Acute Pericarditis

The disease state associated with inflammation of the pericardium +/- myocardium.

# Incidence, Age, Sex, Geography

It is an uncommon condition but is the most common pericardial disease.

It is more common is men. It is seen in all age groups. Geography is significant only in making some of the rarer causes (*i.e. TB, bacterial pericarditis*) more likely.

# Aetiology, and Pathology

In developed countries, four causes are dominant:

1. Primary/viral
2. Ischaemic (*either post-MI or Dressler’s*)
3. Malignancy
4. Uraemia

In general, various other causes are known; these can be subdividing into:

1. **Infectious:**
   1. Viral (*coxsackie B amongst others*)
   2. Bacteria
   3. TB
2. **Non-infectious inflammation:**
   1. Post-infarct
   2. Dressler’s syndrome
   3. Post-radiotherapy
   4. Connective tissue disease
      1. *RA*
      2. *SLE*
3. **Other:**
   1. Malignancy
   2. Trauma
   3. Uraemia

Pathologically, inflammation (*manifesting as thickening of the pericardium*) with increased pericardial fluid is seen. The fluid may be:

* Fibrinous/serous
* Purulent (*bacterial pericarditis*)
* Haemorrhagic (*generally seen in TB or malignancy; trauma too but context makes this obvious*)

The underlying epicardium may also be inflamed; in fact, this is required for the development of ECG changes.

# Symptoms and Signs

The classical picture of pericarditis is chest pain that:

* Radiates widely (*shoulders, neck, back, …*)
* Is exacerbated by any movement: *breathing, swallowing, change in position*
* Is improved by sitting forward

There may also be features of the underlying cause.

Examination features are often absent but may include:

* Low grade fever
* Friction rub (*high pitched scratching/crunching noise*)

## Dressler’s syndrome & Ischaemic pericarditis

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| Post-MI pericarditis | This occurs a few days after an infarct. Recurrent pain with a different character to the initial infarct is typical.  It is often treated with opiates & resolves spontaneously. |
| Dressler’s syndrome | The classic syndrome involves:   * Fever * Pericarditis * +/- Pleuritis   It occurs several weeks to months after an MI. |

# Tests

Typically, a diagnosis of pericarditis requires two out of three of:

1. Typical history
2. Suggestive ECG changes
3. Echo showing effusion/pericardial thickening

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| ECG | Assumes the presence of epicarditis; typical features may evolve in a rather haphazard fashion but include:   * ST elevation (*non-territorial; saddle shaped*) * PR depression (*the most specific finding*) * T wave inversion (*usually later; usually seen with greater degrees of myocardial involvement*) |
| Echo | A pericardial effusion may be seen.  If it is, regular monitoring may be wise. |

# Management & Prognosis

In general prognosis is excellent with resolution in a few weeks being the norm. This is dependent on cause –*important exceptions are probably malignancy, and TB.*

Treatment for involves treating the cause (*if present*) and then giving anti-inflammatory medications:

1. NSAIDs (*except in post-MI pericarditis where they may increase the risk of rupture*)
2. Colchicine
3. Glucocorticoids

If tamponade is impending/present, pericardiocentesis must be done.