Pericarditis: Diagnosis and Treatment

Chris Bond, MD


### Diagnosis – 2 of 4 criteria required

1. Classic chest pain history – Sharp, pleuritic, and positional (improved by sitting up and leaning forward), radiating to trapezius ridge
2. Pericardial friction rub
3. Pericardial effusion on echocardiogram or ED bedside ultrasound
4. Characteristic ECG changes

### 3-Part Treatment

1. **NSAID or Aspirin (ASA)**
   - Taper dose over 3-4 weeks
   - No definite correct medication or dosing regimen has been established.
   
   I use ibuprofen as follows:
   
   - 600 mg po tid x 10 days, then
   - 400 mg po tid x 10 days, then
   - 200 mg po tid x 10 days

   For ASA, Imazio’s study used 800 mg tid for 7-10 days, followed by taper over 3-4 weeks. Suggestion is 2-4 g of ASA per day, and will vary based on tablet size in each country. For Canada (325 mg tabs) a possible regimen is:
   
   - 975 mg po tid x 10 days, then
   - 650 mg po tid x 10 days, then
   - 325 mg po tid x 10 days

2. **Colchicine**
   - If >70 kg, 0.6 mg po BID x 3 months
   - If <70 kg, 0.6 mg po daily x 3 months
   - If diarrhea intractable, decrease dose to once daily for >70 kg or stop for <70 kg
   - Note: Some countries have 0.5 mg tabs only (Canada is 0.6 mg)

3. **Proton pump inhibitor (PPI)** once daily x 3 months

Note: **Steroids should be avoided** in all cases except refractory cases and neoplastic/autoimmune causes. Steroids are an independent risk for increased recurrence of pericarditis. Expert consultation strongly recommended if prescribing.

### Cost of Colchicine per Pill

- Canada/ Europe: ~$0.50-1
- USA: Up to $5 per pill

### Contraindications to Colchicine

- Tuberculous, purulent or neoplastic pericarditis
- Severe liver disease or aminotransferase levels ≥1.5x upper limits of normal
- Serum creatinine >2.5 mg/dL (>221 umol/L)
- Skeletal myopathy or CK > upper limits of normal
- Blood dyscrasia
- Inflammatory bowel disease
- Life expectancy ≤18 months
- Pregnancy or lactation
- Women of childbearing potential not using contraception
- Hypersensitivity to colchicine or other contraindication to its use

### Predictors of poor outcome – Recurrence, tamponade, and constriction
<table>
<thead>
<tr>
<th>Predictor</th>
<th>Hazard Ratio</th>
<th>95% confidence interval</th>
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<tbody>
<tr>
<td>Female gender</td>
<td>1.67</td>
<td>1.03 to 2.70</td>
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<tr>
<td>Fever $&gt;38^\circ\text{C}$</td>
<td>3.56</td>
<td>1.82 to 6.95</td>
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<tr>
<td>Subacute course</td>
<td>3.97</td>
<td>1.66 to 9.50</td>
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<tr>
<td>Large effusion ($&gt;2$ cm) or tamponade</td>
<td>2.15</td>
<td>1.09 to 4.23</td>
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<tr>
<td>ASA or NSAID failure</td>
<td>2.50</td>
<td>1.28 to 4.91</td>
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