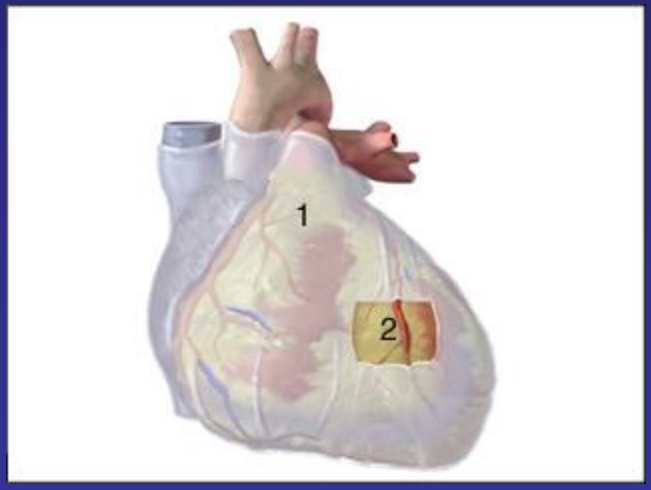
PERICARDITIS



Case Presentation

A 30-year-old woman was admitted to the hospital because of fever, cough, shortness of breath and a pericardial effusion…

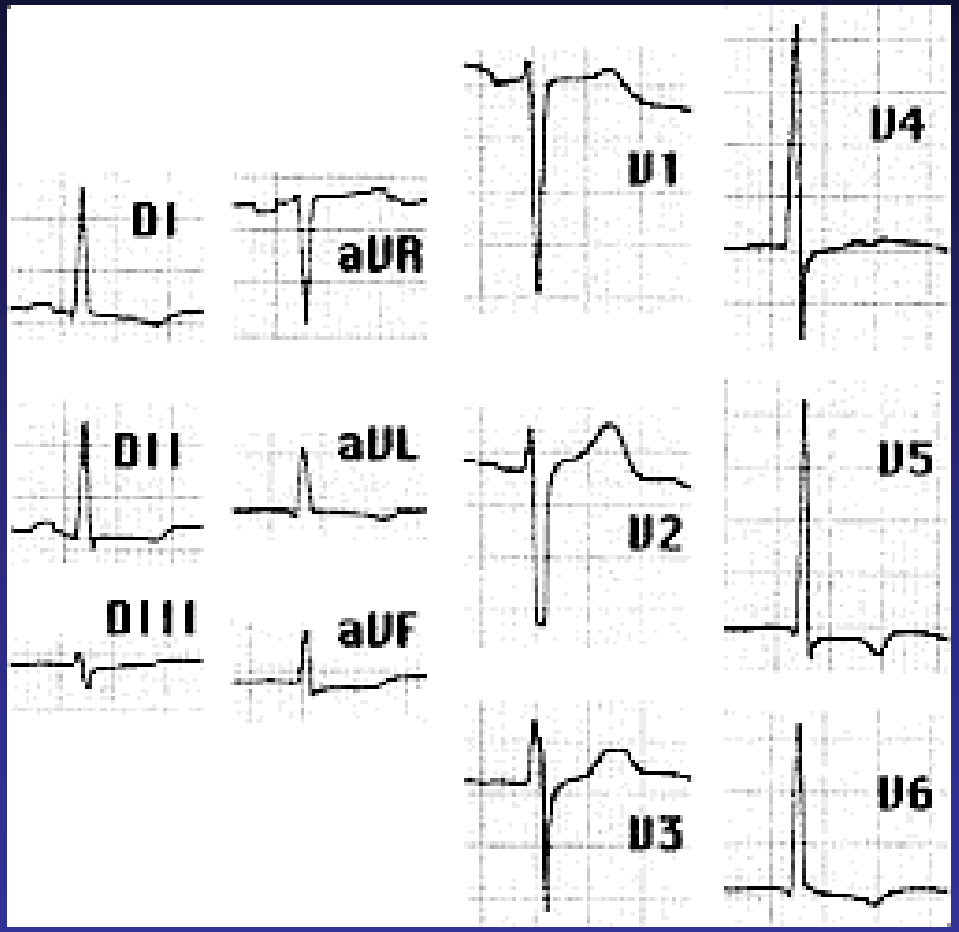
Etiologies of Acute Pericarditis

Physical Examination

- Pulse, BP, RR, Temp.
- Examination of the heart.
- Signs of heart failure (right + left)
- Pulsus paradoxus
- Kussmaul's sign
- Beck's triad

  hypotension, JVD, quite heart

ECG



Stages of acute pericarditis on ECG

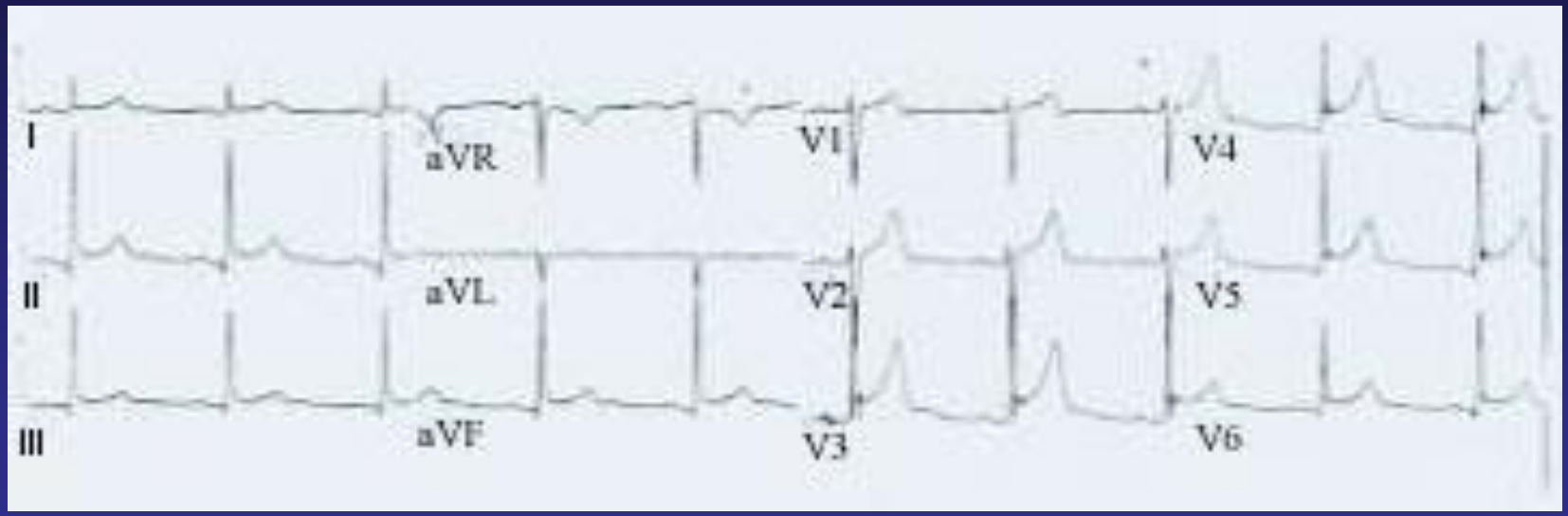


Table 1. Laboratory Values on Admission.*

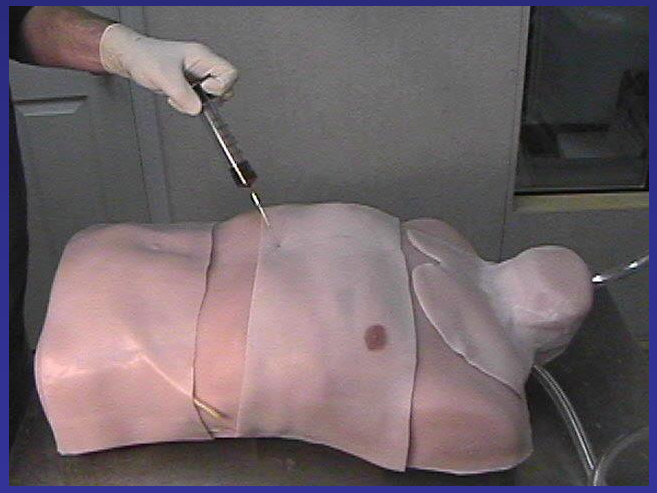
Variable	Value
White-cell count (per mm³)	8,100
Differential count (%)	
Neutrophils	71
Lymphocytes	20
Monocytes	7
Eosinophils	1
Basophils	1
Hematocrit (%)	32.8
Hemoglobin (g/dl)	11.1
Platelet count (per mm³)	553,000
Mean corpuscular volume (μm³)	81
Sodium (mmol/liter)	136
Potassium (mmol/liter)	3.7
Chloride (mmol/liter)	105
Carbon dioxide (mmol/liter)	25.6
Calcium (mg/dl)	9.3
Phosphorus (mg/dl)	2.9
Magnesium (mg/dl)	1.8
Iron (μg/dl)	11
Iron-binding capacity (μg/dl)	227
Ferritin (ng/ml)	126
Rheumatoid factor (U/ml)	Negative
Antinuclear antibodies	Positive (titer, 1:80); negative (titer, 1:160), with a speckled pattern
Anti–double-stranded DNA antibodies	Negative (titer, 1:10)

* To convert the value for calcium to millimoles per liter, multiply by 0.250. To convert the value for phosphorus to millimoles per liter, multiply by 0.3229. To convert the value for magnesium to milliequivalents per liter, divide by 0.5. To convert the values for iron and iron-binding capacity to micromoles per liter, multiply by 0.1791.

Chest X-ray

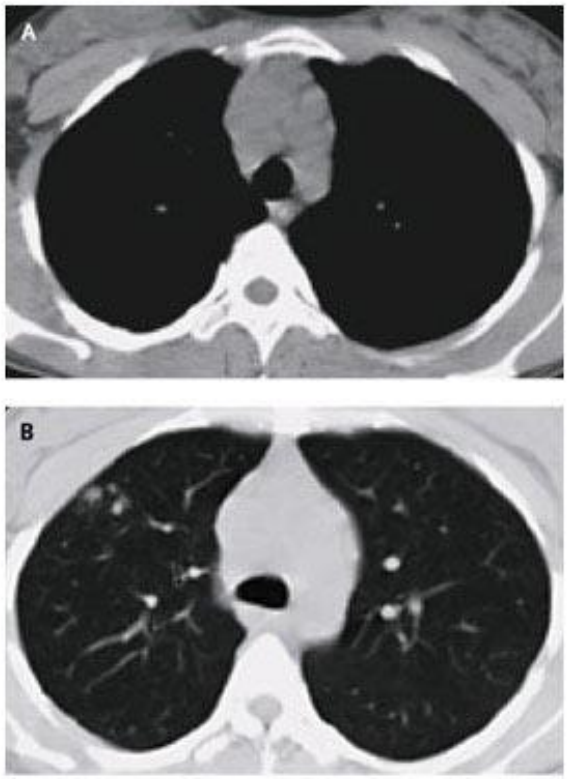
What would be your next step?

Pericardiocentesis was performed…



Chest X-ray 1 month later

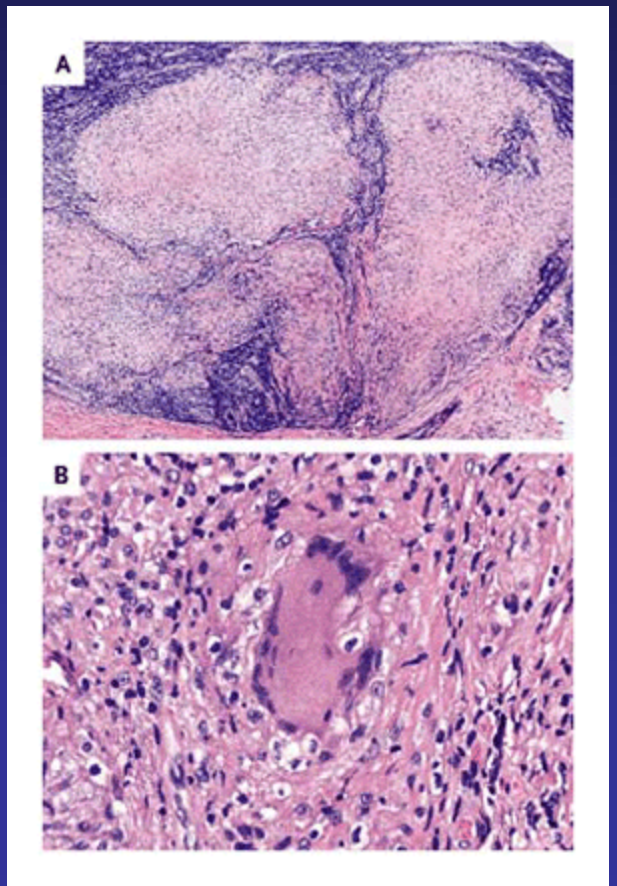
Chest CT



What would be your next step?

Bronchoscopy and FNA from a mediastinal lymph node.

Caseating granuloma



Tuberculous Pericarditis

Epidemiology

- Uncommon in countries where TB rates are low.
- In countries with high prevalence of TB it is among the most common cause of heart failure (“Transkei heart”).

Diagnosis

- **Mediastinal lymphadenopathy**
- **Pulmonary lesions**
- **Pleural effusion**

All on the same side

Plus

- **Large pericardial effusion**

Problems with definitive diagnosis

- Acid-fast smears from the pericardial fluid are usually negative.
- Cultures are positive in only 50% of cases.
- Pericardial biopsy is usually diagnostic (Pericardioscopy - *Circulation.* 2003;107:978.).
- Mediastinoscopy with mediastinal lymph node biopsy.