

# Recurrent Pericarditis as First Presentation of Systemic Lupus Erythematosis

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## Citation

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## Abstract

Systemic lupus erythematosis (SLE) has been implicated in acute non-infectious inflammatory pericarditis usually in young people with rare reports of pericardial tamponade and congestive heart failure. We report a case of 20 years old girl with generalized lymphadenopathy presenting with recurrent acute pericarditis due to SLE, who presented with chest pain and shortness of breath on exertion. She improved with prednisone therapy. Our results thus highlight the importance of ruling out SLE as the initial manifestation of recurrent pericarditis and generalized lymphadenopathy especially in young patients.

## CASE SUMMARY

A 20-year-old African American lady presented with left sided chest pain radiating towards right side, 7/10 in intensity increased with cough, movement of body, more on lying flat and some improvement on sitting or leaning forward. She denied any fever, sputum or myalgia and bodyache. She denied smoking, drinking alcohol and iv drug abuse along with high risk behaviour. She did not have significant past medical history and was taking depoprovera injection once every three months for birth control. She had no known drug allergy and family history was significant for high blood pressure in mother and asthma in father. Physical examination revealed BP 113/53mm of Hg, HR 112 bpm, RR 20 / min, temperature 98.7°F, pupils equally reactive to light and accommodation. She had multiple bilateral anterior cervical, supraclavicular, axillary lymph nodes palpable which were non-matted, discrete, rubbery, non-tender and soft in consistency. Cardiac examination revealed tachycardia, normal first and second heart sounds and faint biphasic pericardial rub audible at apex. Lung examination and neurological exams were normal. Abdomen was soft non-tender without any organomegaly. The electrocardiogram (Fig.1) revealed sinus tachycardia with diffuse ST elevation with concavity upward in leads I,II,III,AVF,V2-V6, elevation of PR segment in AVR and depression in I,II,III,AVF,V2-V6. X ray of chest was normal and CT scan of chest was negative for pulmonary embolism but had multiple axillary, paratracheal and supraclavicular lymph nodes. Lymph node biopsy showed follicular hyperplasia and was negative for malignancy. Antinuclear antibody

showed homogenous speckled pattern positive in high titres along with dsDNA. 2D Echocardiogram revealed concentric left ventricular hypertrophy and minimal pericardial effusion. HIV serologies along with other viral markers including echovirus, coxsackie and EB virus were negative.

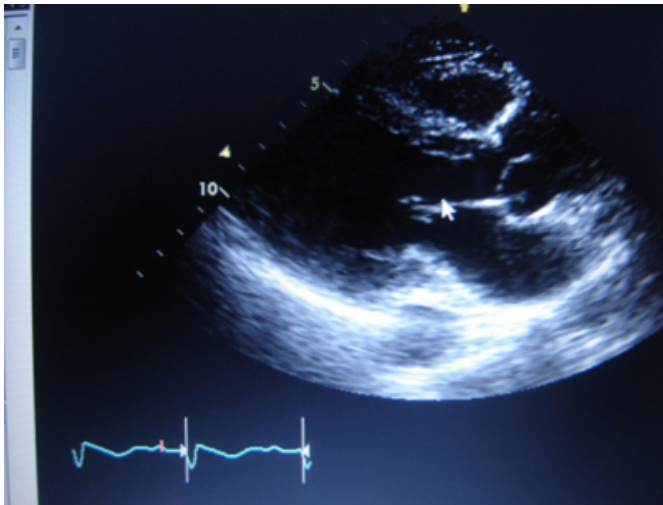
## Figure 1

Chest X-ray



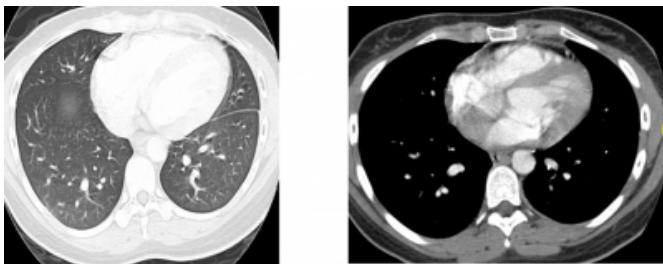
**Figure 2**

ECHO of Pt in PLAX view



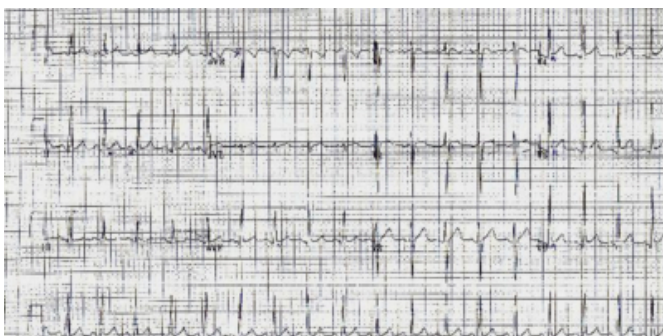
**Figure 3**

CT chest of our patient



**Figure 4**

Fig (1) EKG in Pericarditis



## DISCUSSION

Acute inflammation of the pericardium is usually of idiopathic etiology and may be due to systemic diseases like autoimmune syndromes, uremia, neoplasm, radiation, drug toxicity, hemopericardium, postcardiac surgery, or contiguous inflammatory processes in the myocardium or lung <sup>12</sup> .

A diagnosis of acute pericarditis should be reserved for

patients with an audible pericardial friction rub or chest pain with typical electrocardiographic findings, most notably widespread ST-segment elevation. Reported incidence of pericarditis in SLE is 12-48%, clinically evident pericarditis in 25% and autopsy series revealed pericardial involvement in 62% <sup>3</sup> . Frank cardiac tamponade has been reported, albeit on rare occasions. Lymphadenopathy occurs in 40% of patients with SLE and biopsies typically reveal reactive or immunoblastic hyperplasia. However, lymphomas occur at an increased frequency in patients with SLE and a diagnostic workup with a lymph node biopsy may be necessary to include or exclude this possibility.

Laboratory tests include anti-double stranded DNA, anti-RNP, anti-Sm, anti-Ro, anti-La, C3, and C4. 60-70% of patients with SLE will be anti-DNA positive. 30-40% of patients with SLE will be anti-Sm positive. Important conditions that may cause chest pain similar to that of pericarditis include myocardial infarction and pulmonary embolism <sup>123</sup> .

The most troublesome complication of acute pericarditis is recurrent episodes of pericardial inflammation, occurring in 15% to 32% of cases. The optimal method for prevention has not been fully established; accepted modalities include nonsteroidal anti-inflammatory drugs, corticosteroids, immunosuppressive agents, and pericardiectomy. Based on the proven efficacy of colchicine therapy for familial Mediterranean fever (recurrent polyserositis), several small studies have used colchicine successfully to prevent recurrence of acute pericarditis after failure of conventional treatment <sup>4</sup> .

Our patient had similar chest pain couple of months ago and presented to the primary care physician ,later was sent to cardiologist and a diagnosis of atypical chest pain was made looking at her age, physical examination , EKG and ECHO findings. We think that she had similar pericarditis before which was clinically missed and might have resolved. Our results highlight the importance of ruling out SLE as the cause of recurrent pericarditis and generalized lymphadenopathy , even though it is rare, as well as the steroid treatment in such situations whenever a young patient presents with these symptoms.

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