

Systemic Lupus Erythematosus Presenting as Cardiac Tamponade Successfully Treated With High-Dose Steroid: A Case Report

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ABSTRACT

We report a case of a young woman with systemic lupus induced cardiac tamponade. After discussion with the cardiac surgeons' team, medical management was decided and no pericardiocentesis was performed. Bolus of Methylprednisolone intravenously were administered with a rapid improvement of the symptom and resolution of the pericardial effusion.

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Key words: Cardiac tamponade; Pericardial effusion; Systemic lupus erythematosus; Steroid

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CASE REPORT

A 29-year-old woman presented to the emergency department for chest pain and dyspnea.

She had a 4-year history of Lupus Erythematosus associated with AntiPhospholipid Antibody syndrome revealed by a pulmonary

embolism.

She presented recurrent polyarteritis episodes since the diagnosis of lupus erythematosus, with the last one 6 months before the index hospitalization. All the recurrences had been treated successfully with high doses of Methylprednisone and the disease was considered controlled.

Her usual medication was Prednisone 10 mg one daily and Fluindione 15 mg daily with a correct observance.

At the admission, the hemodynamic was stable with a blood pressure of 106/57 mm Hg, heart rate of 110 beats/min, oxygen saturation of 98% on room air and temperature of 37.2°. Physical examination showed soft leg edemas and decreased breath sounds on the left.

The 12-lead electrocardiogram was considered as normal with a physiologic incomplete right bundle branch block and a 120 beats/min sinus tachycardia.

An echocardiogram was logically performed and revealed a large pericardial effusion with multiple partitions and thick aspect.

The maximal diameters of this effusion were of 27mm compared to the left ventricle and 10mm to the right, with diastolic collapse of right atrium and right ventricle suggesting a cardiac tamponade. A moderate left pleuritis was also observed on pleural echography.

The blood cell count showed elevated neutrophilia and C-reactive protein was raised at 245 mg/L. The International Normalized Ratio (INR) was in therapeutic window.

Pericardiocentesis was estimated to be technically difficult given a largely posterior fluid collection and the hemorrhagic risk induced by anticoagulant therapy.

Surgical approach was considered but seemed too invasive regarding to the relative clinical good tolerability.

The rheumatology service was then consulted and their recommended to initiate therapy with Methylprednisolone 100 mg intravenously once per day during 3 days under a close monitoring of the patient assessing for response to the treatment. The decision was guided by the previous successful responses to the high dose steroid during the recurrent episodes of arthritis.

The oral anticoagulation was stopped and replaced by

intravenous heparin because of a plan to perform emergent pericardiocentesis if any deterioration occurred.

Significant clinical improvement occurred 3 days later and the intravenous treatment was followed by Prednisone 30 mg by mouth daily.

Repeated transthoracic echocardiography 5 days after the initial study demonstrated no residual pericardial or pleural effusion. The C-reactive protein level gradually decreased until 34 mg/L.

The patient was discharged under the same dose of prednisone with instruction of close follow-up and to perform an echocardiography at 1 month.

Pericarditis is a frequent cardiac manifestation of systemic lupus erythematosus (50-62%) but tamponade -although classical- is scarcely reported (1%)^[1,2].

We present a rare case of lupus erythematosus presenting with isolate cardiac tamponade resolved with administration of high-dose steroids although pericardiocentesis is frequently associated in the literature^[2].

Initiation of steroid therapy should be performed promptly and may be sufficient. Under close monitoring, medical treatment

should be considered in selected patients with probability of favorable response to steroid and hemodynamic stability presenting lupus erythematosus related pericardial effusion.

CONFLICT OF INTERESTS

There are no conflicts of interest with regard to the present study.

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