

Right Atrial Thrombus and Systemic Lupus Erythematosus. Cases Report

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Abstract

We present one cases of patients with right atrial thrombus with systemic lupus erythematosus. This pathology is a rare cardiovascular manifestation that in this case was incidental finding during pre-kidney transplant studies.

Key Words: systemic lupus erythematosus; right atrial thrombus; intracardiac mass; intracardiac thrombus

Introduction

Systemic lupus erythematosus is an autoimmune disease that can involve multiple organs. Its pathological manifestations are immune complex deposition and vasculitis changes. Affect young women; prevalence ratio approximately 1:10. [1–3] Estimated incidence rates in North America, South America, and Europe range from 2 to 8 per 100000 per year. Prevalence rates are estimated to be 51 per 100000 in the United States, while in Saudi Arabia were estimated to be 19.28 per 100000 population based on study done in the Al-Qaseem region [2].

Cardiac involvement in systemic lupus can be due to variables and involve different presentation. Pericarditis is the most common lupus manifestation [4]. The finding of atrial thrombosis during systemic lupus erythematosus is a rare event [5]. Several clinical and postmortem studies have demonstrated a high incidence of cardiovascular manifestations involving the pericardium, myocardium, endocardium, cardiac valves, and coronary vessels. Although the association of raised anticardiolipin antibodies with systemic lupus erythematosus has been well described [6].

The thrombus in the right atrium is rare; the identification is mainly determined using echocardiography [1]. The risk factors of thrombosis

in systemic lupus erythematosus are antiphospholipid antibodies, inflammation, and disease activity, the other thrombophilic risk factors for example: Protein C, protein S, and antithrombin deficiencies. Smoking, hypertension, diabetes mellitus and dyslipidemia. The use of glucocorticoids has been associated with thrombosis [2].

Case Report

A 24-year-old female with systemic lupus erythematosus associated to nephropathy, who assist for echocardiography how study for renal transplant, without cardiovascular symptoms.

The thoracic echocardiogram (Image 1) presents an intracardiac mass in right atrial with reduced left ventricular ejection fraction, can be correlated with thrombus. However, the location of the mass required extensive studies with cardioresonance (Image 2), which showed: In the floor of the right atrium, adjacent to the Eustachian valve, A mass with well-defined borders, isointense to the myocardium on cine sequences, white blood, slightly hyperintense on T2-weighted sequences, without significant enhancement on early enhancement sequences and late, compatible with intracavitary thrombus in the right atrium. Therefore, the patient begins anticoagulant therapy with warfarin.

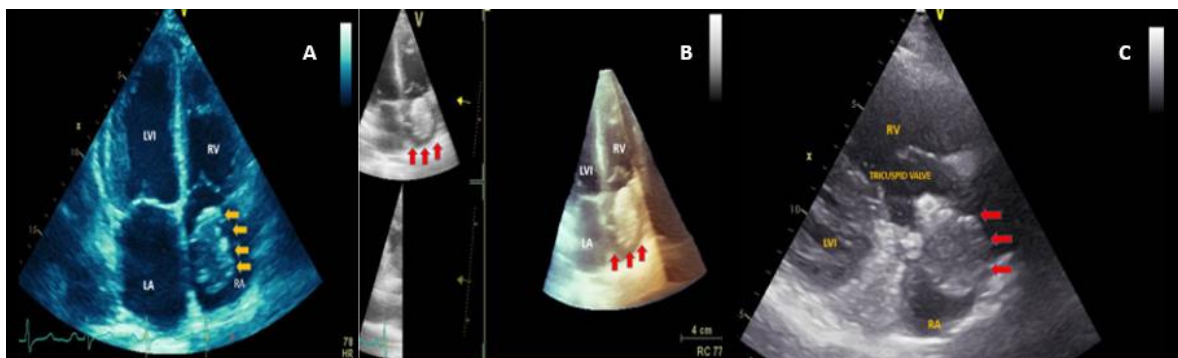


Image 1. Thoracic Echocardiogram

a 4-chamber view is evident with the presence of a rounded hyperechoic image in the right atrium which occupies almost 80% of the atrium.

b 3d reconstruction confirming round appearance mass with the same characteristics.

c long axis echocardiography view of the right ventricle showing the image over the floor of the right atrial close to the tricuspid valve



Image 2. Cardioresonance

In the floor of the right atrium, adjacent to the Eustachian valve, A mass with well-defined borders, isointense to the myocardium on cine sequences, white blood, slightly hyperintense on T2-weighted sequences, without significant enhancement on early enhancement sequences and late, compatible with intracavitary thrombus in the right atrium.

Discussion

The systemic lupus erythematosus patients are at significantly high risk for thrombosis which is multifactorial [2]. The right atrial thrombosis is a rare cardiovascular manifestation, is was present in young women, by these reason we showed a case in patient asymptomatic with unusual presentation of intracardiac thrombus.

Author Contributions

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