OLGU SUNUMU • CASE REPORT

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Lipomatous Hypertrophy of the Interatrial Septum due to Long Term Steroid Use in Multiple Sclerosis Patient

Multipl Sklerozlu Bir Hastada Uzun Dönem Steroid Kullanımına Bağlı İnteratriyal Septumun Lipomatöz Hipertrofisi

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ABSTRACT

A 34-year-old woman with no cardiovascular history was referred to the cardiology clinic for palpitations. She was diagnosed as multiple sclerosis two years prior to current presentation and on long term both intravenous and oral prednisone therapy due to uncontrolled multiple sclerosis attacks. Transthoracic and transesophageal echocardiography showed a highly echogenic bilobed interatrial mass suggestive of fatty tissue. Multidetector cardiac tomography and cardiac magnetic resonance imaging confirmed mass to be lipomatous hypertrophy of the interatrial septum typically not spreading to the foramen ovale.

Key Words: *Hypertrophy; atrial septum; steroids.*

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ÖZET

Daha önce kardiyovasküler hastalık öyküsü olmayan 34 yaşındaki kadın hasta, kliniğimize çarpıntı şikayetiyle yönlendirildi. Hastanın tıbbi öyküsünde başvurudan iki yıl önce tanısı konulmuş multipl skleroz hastalığı mevcuttu ve kontrolsüz multipl skleroz atakları nedeniyle oral ve intravenöz prednizon tedavisini uzunca bir süredir almaktaydı. Transtorasik ve transözefageal ekokardiyografiyle yağ dokusunu düşündüren oldukça ekojenik bilobüler interatriyal kitle gösterildi. Multidedektör kardiyak tomografi ve kardiyak manyetik rezonans görüntüleme ile kitlenin tipik olarak foramen ovaleye yayılmayan interatriyal septumun lipomatöz hipertrofisi olduğu doğrulandı.

Anahtar Kelimeler: *Hipertrofi; atriyal septum; steroidler.*

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CASE REPORT

A 34-year-old woman presented to the cardiology clinic with a 5- to 6- month history of paroxsymal palpitations. She was diagnosed as multiple sclerosis two years prior to current presentation and on long term both intravenous and oral prednisone therapy due to uncontrolled attacks. Physical examination was completely normal with a body mass index (BMI) of 22.4 kg/m^2. Electrocardiogram was also normal, but 24 hours rhythm holter monitoring revealed paroxsymal atrial fibrillation episodes. Transthoracic and transesophageal echocardiography showed a highly echogenic bilobed interatrial mass (12 x 28 mm) suggestive of fatty tissue (Figure 1A). Other echocardiographic findings were within normal ranges. For further evaluation of mass multidetector cardiac tomography (MDCT) and magnetic resonance imaging (MRI) was performed. MDCT demonstrated the fatty infiltration with low radio-density in the interatrial septum which was distinguishable from the normal myocardium (Figure 1B). Cardiac MRI was also confirmed the mass to be lipomatous hypertrophy of the interatrial septum (LHIS) typically not spreading to the foramen ovale (Figure 1C). The patient was discharged with beta-blocker for rate control of atrial fibrillation, oral anti-coagulant therapy for stroke prevention and close follow-up.

DISCUSSION

LHIS is a rare benign tumor of the heart consisting of a non-encapsulated accumulation of mature fat, multivacuolated adipose cells, and enlarged cardiac myocytes. The incidence has been quoted at 1% of autopsy cases; however, a higher incidence up to 8% was found on transesophageal echocardiographic examinations[1,2]. LHIS is

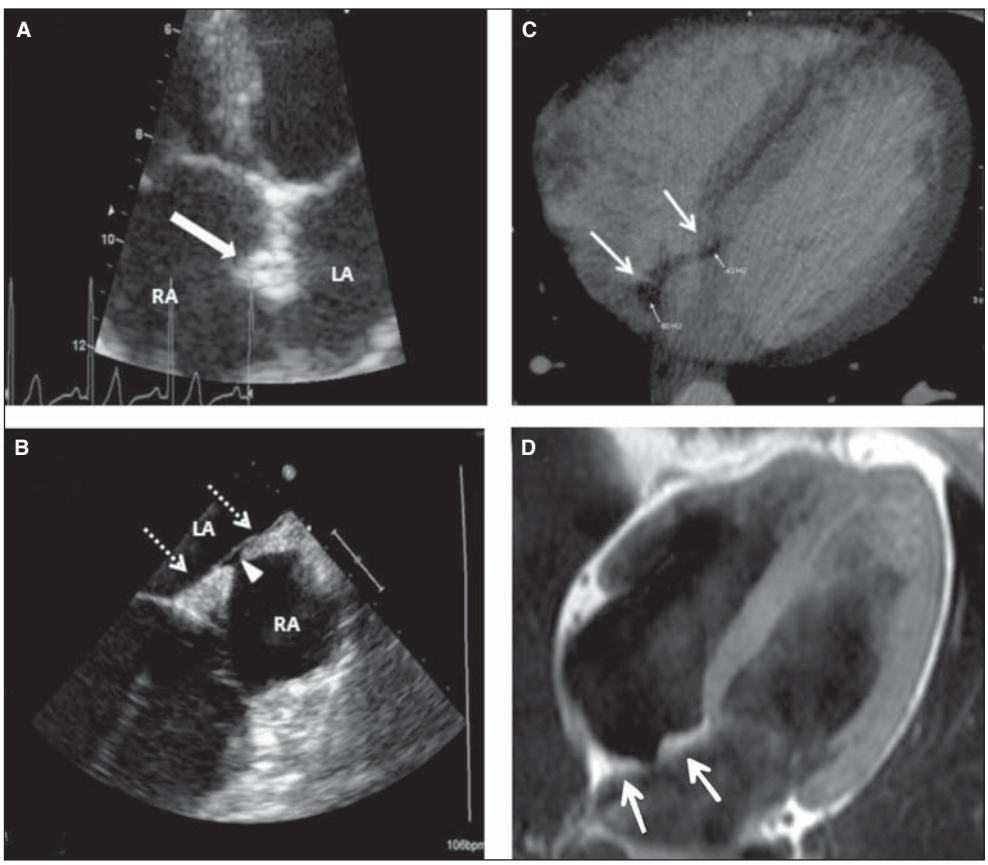

Figure 1. A: Transthoracic apical four-chamber view showed a hyperechogenic mass (thick arrow) in the interatrial septum. B: Transesophageal echocardiography at the mid-oesphageal 180° level showing thick and hyperechogenic interatrial septum (dotted arrows) with not spread to the foramen ovale (arrowhead) suggesting LHIS. C: Presence of LHIS (thin arrows) without typical sparing of the fossa ovalis with low radiodensity similar to that of subcutaneous fat. D: Cardiac magnetic resonance image shows the characteristic a homogenous bilobed, non-encapsulated high signal density mass in the superior and inferior limbus of the interatrial septum which appears brighter than myocardium and similar to epicardial fat (white arrows) (RA: Right atrium, LA: Left atrium).

usually an incidental finding and is mostly asymptomatic; however it can be associated with congestive heart failure, atrial fibrillation, supraventricular tachycardia, palpitations and syncope. The precise etiology is unknown but it has been suggested that LHIS is typically associated with obesity and aging. We have described a patient on long-term steroid therapy with abnormal adipose tissue deposition in the interatrial septum. Long-term steroid therapy may be associated with deposition of visceral adipose tissue within the heart. However there has been only one report of LHIS due to long term steroid use in literature[3]. In our case long term steroid use might be because of LHIS however, relationship between LHIS and long term steroid use can also be incidental. LHIS might be responsible of cardiac arrhythmias in long term corticosteroid users as shown in our report. However, more sufficient data is needed to explain the association between long term steroid use and LHIS.

CONFLICT of INTEREST

None declared.

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