

## Cardiac Lymphoma: a Cause of Complete Atrioventricular Block and Acute Myocardial Infarction

### Akut Miyokart Enfarktüsünün ve Atrioventriküler Tam Bloğun Nadir Bir Nedeni: Kardiyak Lenfoma

Ramazan Akdemir<sup>1</sup>, Cemil Bilir<sup>2</sup>

<sup>1</sup> Sakarya University, School of Medicine, Department of Cardiology, Sakarya, Turkey

<sup>2</sup> Zonguldak Karaelmas University, School of Medicine, Department of Internal Medicine, Zonguldak, Turkey

#### Abstract

A 75-year-old female was admitted to hospital with cardiogenic shock. She has no known heart disease before. ECG showed third-degree atrioventricular block with ST segment elevations in inferior leads. Echocardiography showed cardiac mass. Further analysis showed cardiac lymphoma. In this, paper we aimed to present and discuss the cardiac lymphoma.

**Keywords:** Cardiac lymphoma, ECG, Atrioventricular block, Myocardial Infarction

**Application:** 08.03.2011 **Accepted:** 16.05.2011

#### Özet

75 yaşında kadın hasta kardiyojenik şokla hastaneye getirildi. Önceden bilinen bir kalp hastalığı yoktu. EKG de 3. Derece AV blok ve inferiyor derivasyonlarda STE segment yükselmesi vardı. Ekokardiyografi kalpte bir kitle gösterdi. Tetkikler sonucunda kitlenin kardiyak lenfoma olduğu saptandı. Bu yazıda, bir primer kardiyak lenfoma olgusunun sunulması ve tartışılması amaçlanmıştır.

**Anahtar Kelimeler** Kardiyak lenfoma, EKG, Atrioventriküler blok, Miyokart Enfarktüsü

**Başvuru Tarihi:** 08.03.2011 **Kabul Tarihi:** 16.05.2011

#### Images in Medicine

A 75-year-old female was admitted to hospital with cardiogenic shock. She has no known heart disease before. She was unconsciousness for two hours and blood pressure was unremarkable. ECG showed third-degree atrioventricular block with ST segment elevations in inferior leads (*Figure 1*). She had taken to the cardiac catheterization for primary PTCA though acute ST elevation Myocardial Infarction complicated with complete A-V block. A temporary pacemaker implantation was tried before but it was unsuccessful. Finally, echocardiography guidance was tried. Transthoracic echocardiog-

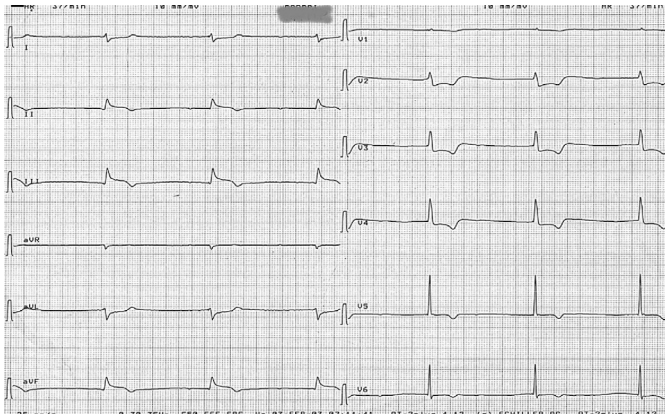
raphy showed thickened left and right atrial walls with mild pericardial effusion. There was huge mass which invades right atrial wall, tricuspid annulus and right ventricle but inferior and superior vena cava was clear (*Figure 2 A-B*). She had no known any disease before and there was not any lenfadenopathy and other systemic malignancy. Patient had died about in twenty minutes after an unsuccessful cardiopulmonary resuscitation just after pace maker implantation when waiting the primary PTCA team. Blood tests taken in the emergency department showed the elevated levels of LDH (1270 IU/L) and troponin (5ng/mL). Pathology evaluation confirmed the cardiac lymphoma. Due to absence of the time for

whole body scan and investigate any other organ invol-  
vent, this case remained only cardiac lymphoma. Cardiac  
lymphoma may be metastatic or primary in origin. Cardiac  
lymphomas, either metastatic or primary, may cause  
cardiac death, atrial arrhythmias and atrioventricular con-

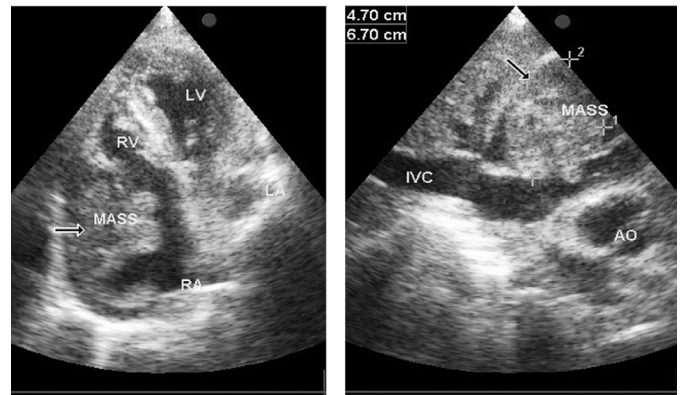
duction blocks.<sup>1,2</sup>

This case describes a cardiac lymphoma which was as-  
sociated with acute myocardial infarction and complete  
A-V block.

**Figure 1:** ECG shows complete A-V and acute inferior  
myocardial infarction



**Figure 2:** Transthoracic echocardiography shows the mass  
thickened right atrial tissue and clear vena cava



## References

1. Otsuji Y, Arima N, Fujiwara H, et. Al:Reversible complete atrioventricular block due to malignant lymphoma. *Eur Heart J* 1994;15:407-8
2. Bulum J, Banfić L, Strozzi M, Aurer I, Jelasić D.: Primary cardiac lymphoma presenting as atrial flutter and total heart block. *Heart Vessels*. 2007;22(1):52-4.