## Leffer to the Editor

## Cardiac magnetic resonance imaging in unusual form of hypertrophic cardiomyopathy

Dear Editor,

According to the article by Yalcinkaya et al<sup>1</sup> in European Review for Medical and Pharmalogical Sciences, cardiac magnetic resonance imaging has an important role in diagnosing cardiomy-opathies of unclear etiology. Cardiac magnetic resonance imaging (CMRI) is highly useful diagnostic modality for unusual form of hypertrophic cardiomyopathy (HCM).

A 24-year-old woman reffered to our clinic for further work-up after had been echocardiographically diagnosed with suspected cardiac mass in the inferior wall of the left ventricle (LV). She gave no history of palpitations, dizziness or syncope. Cardiovascular magnetic resonance imaging, performed in our clinic, revealed asymetric hypertrophic cardiomyopathy with an apical and midcavity obliteration, caused by significantly thickened LV posterolateral wall with maximum end-diastolic wall thickness of 28 mm (Figure 1A). The myocardial delayed enhancement images demonstrated a focal fibrosis in the same thickened posterolateral localization (Figure 1B, C, green arrow). The treadmill test revealed a few episodes of non sustained ventricular tachycardia. Considering high risk for life threatening arrhythmias, the patient was suggested for implantable cardioverter defibrillator (ICD) implantation.

HCM is the most common genetic heart disease<sup>2</sup>. Patients with HCM can present with arrhythmias, dizziness, syncope, heart failure, sudden death or can be asymptomatic<sup>3</sup>. Patients with high risk for sudden cardiac death are considered for prophylactic defibrillator placement<sup>4</sup>. As the least common form of segmental cardiomyopathy, posterolateral HCM may be underevaluated by echocardiography<sup>5,6</sup> and more sofisticated diagnostic modality as CMRI is recomended. This case highlights an important role of CMRI in differentiation of intracardiac mass and atypical HCM, which may be very important for making further treatment decision.

## **Conflict of Interest**

The Authors declare that they have no conflict of interests.

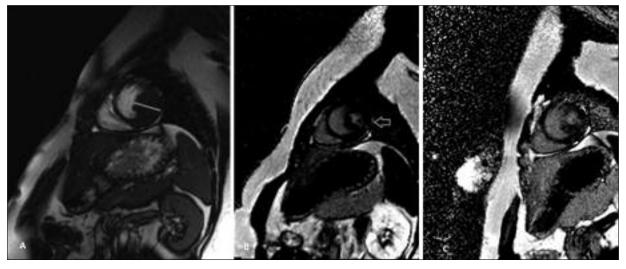


Figure 1.

## References

- 1) YALCINKAYA E, CELIK M, BUGAN B. Cardiomyopathies with an unclear etiology: fundamental diagnostic role of cardiac magnetic resonance imaging. Eur Rev Med Pharmacol Sci 2014; 18: 1110.
- 2) FREY N, LUEDDE M, KATUS HA. Mechanisms of disease: hypertrophic cardiomyopathy. Nat Rev Cardiol 2011; 9: 91-
- 3) MARON BJ, McKenna WJ, Danielson GK, Kappenberger LJ, Kuhn HJ, Seidman CE, Shah PM, Spencer WH 3rd, Spirito P, Ten Cate FJ, Wigle ED. Task Force on Clinical Expert Consensus Documents. American College of Cardiology; Committee for Practice Guidelines. European Society of Cardiology. J Am Coll Cardiol 2003; 5: 42: 1687-1713.
- 4) MARON BJ, ESTES NA, MARON MS, ALMQUIST AK, LINK MS, UDELSON JE. Primary prevention of sudden death as a novel treatment strategy in hypertrophic cardiomyopathy. Circulation 2003; 107: 2872-2875.
- 5) MARON MS, MARON BJ, HARRIGAN C, BUROS J, GIBSON CM, OLIVOTTO I, BILLER L, LESSER JR, UDELSON JE, MANNING WJ, APPELBAUM E. Hypertrophic cardiomyopathy phenotype revisited after 50 years with cardiovascular magnetic resonance. J Am Coll Cardiol 2009; 54: 220-228.
- 6) Seki A, Perens G, Fishbein MC. Posterolateral hypertrophic cardiomyopathy: a rare, but clinically significant variant of hypertrophic cardiomyopathy. Cardiovasc Pathol 2014; 23: 381-382.

A. Sustar

Cardiology Clinic Thalassotherapia Opatija, Opatija, Croatia