

# Yamaguchi syndrome: a case report

 Amer Iglica<sup>1\*</sup>,  
 Edin Begić<sup>2</sup>

<sup>1</sup>Clinical Center University of Sarajevo, Sarajevo, Bosnia and Herzegovina

<sup>2</sup>General Hospital "Prim. Dr. Abdulah Nakaš", Sarajevo, Bosnia and Herzegovina

**KEYWORDS:** cardiomyopathy, hypertrophic, left ventricular apex.

**CITATION:** *Cardiol Croat.* 2023;18(5-6):143. | <https://doi.org/10.15836/ccar2023.143>

**\*ADDRESS FOR CORRESPONDENCE:** Amer Iglica, Klinički centar Univerziteta Sarajevo, Bolnička 25, 71000 Sarajevo, Bosnia and Herzegovina. / Phone: +387-62-272-750 / E-mail: [ameriglica@gmail.com](mailto:ameriglica@gmail.com)

**ORCID:** Amer Iglica, <https://orcid.org/0000-0002-4677-8489> • Edin Begić, <https://orcid.org/0000-0001-6842-262X>

**Aim:** To present a patient diagnosed with Yamaguchi syndrome (apical nonobstructive hypertrophic cardiomyopathy).<sup>1,2</sup>



FIGURE 1. Yamaguchi syndrome.

**Case presentation:** The patient was referred for transthoracic echocardiography with suspected ischemic heart disease, with electrocardiographic findings of left ventricular hypertrophy and T wave inversion in the chest as well as the limb lead. Echocardiographic finding of left ventricle showed regular dimensions. From the mediobasal segment to the apex interventricular septal end diastole diameter was 3.1 cm, with left ventricular posterior wall end diastole diameter was 3.2 cm, with preserved ejection fraction of left ventricle of 50%, while diastolic function was altered by the type of prolonged relaxation (tissue Doppler-derived E/ e' ratio 15.2) (Figure 1). There was no evidence of ventricular outflow tract obstruction, even after the Valsalva maneuver. Multi-Slice Computed Tomography coronary angiography showed no obstructive coronary artery disease.

**Conclusion:** Electrocardiographic Yamaguchi syndrome is characterized by signs of left ventricular hypertrophy and giant (>10 mm in amplitude) negative T waves most prominent in V4-5 chest lead. Concentric hypertrophy of the apex is treated with beta-blockers or calcium channel blockers to control the heart rate and angiotensin-converting enzyme (ACE) to reduce left ventricular after-load.

RECEIVED:  
March 7 2023

ACCEPTED:  
March 29, 2023



**LITERATURE** 

1. Giri A, Acharya S, Kamat S, Shukla S, Kumar S. Yamaguchi Syndrome: A Hidden Masquerader of Ischemic Heart Disease. *Cureus.* 2022 Jun 29;14(6):e26439. <https://doi.org/10.7759/cureus.26439>
2. Ruhela M, Ola RK, Chaturvedi N, Bagarhatta R. Yamaguchi syndrome: A mimicker of acute coronary syndrome. *J Family Med Prim Care.* 2022 May;11(5):2223-2225. [https://doi.org/10.4103/jfmpc.jfmpc\\_1800\\_21](https://doi.org/10.4103/jfmpc.jfmpc_1800_21)