Spontaneous coronary artery dissection: a case report

Maja V. Sipic*,
Snezana Lazic,
Dragisa Rasic,
Biljana Krdžić,
Slavica Pajović

Faculty of Medical Science
University of Pristina,
Kosovska Mitrovica, Kosovo

KEYWORDS: chest pain, acute coronary syndrome, young women.

CITATION: Cardiol Croat. 2019;14(9-10):254-5. | https://doi.org/10.15836/ccar2019.254

***ADDRESS FOR CORRESPONDENCE**: Maja V. Sipic, Svetozara Zorića 39/1, Beograd, Republic of Serbia.
Phone: +381641267817 / E-mail: drsipic@yahoo.com

ORCID: Maja Sipić, https://orcid.org/0000-0003-4173-1224 • Snezana Lazić, https://orcid.org/0000-0001-6362-3713
Dragisa Rasic, https://orcid.org/0000-0002-3656-6511 • Biljana Krdžić, https://orcid.org/0000-0002-4756-4001
Slavica Pajović, https://orcid.org/0000-0001-8805-2566

Introduction: Spontaneous coronary artery dissection (SCAD) is a rare cause of acute coronary syndrome. Some of the predisposing factors for SCAD are atherosclerosis, peripartum period, inflammatory and connective tissue disorders, heavy exercise, and certain drugs (oral contraceptives, cocaine, etc.).[1,2]

Case report: 38-year-old woman was admitted to hospital after being examined at a specialist dispensary. This woman, otherwise healthy, gave birth 30 days ago, which was her fourth birth. She negates hypertension and earlier heart disease. She has been smoking for 18 years now, about 10 cigarettes per day. Her brother had a heart attack last year. The complaints began 4 days before, with a sudden onset of pain behind the chest, intensity 5/10, lasting for 15 minutes. She reported to the competent institution, performed an electrocardiogram (ECG) (**Figure 1**) and proposed to continue testing at a hospital setting. She came to the hospital after 2 days, and ECG was performed (**Figure 2**). She was hospitalized, a positive troponin was established (82 pg/ml n.v <14), understood as acute coronary syndrome (ACS). Patient had quitted treatment on her own initiative and came to our institution the next day without any documentation. After the exam and ECG (**Figure 3**), her husband and she were presented with the possible course and outcome of the disease. She was hospitalized and classic treatment for ACS was administrated (no fibrinolytic agent was applied). She had no chest pain. ECG without evolution (**Figure 4**). Troponin values on the rise (180,6 ng/ml). She was scheduled emergent coronary angiography. In the evening before the scheduled coronarography, pain behind the chest bone 5/10 occurs, with elevation of the ST segment in the inferior and anterior region persisting for more than 20 minutes. The administration of nitroglycerin and intravenous nitrate is painless and pain-free, but elevation persists. She was sent urgently to the catheterization room. A spontaneous dissection of left anterior descending artery was found, and a continuation of drug therapy was proposed. At the follow-up examination a month later, she had subjectively no complaints. Coronary artery dissection is a rare cause of acute coronary syndrome but is accompanied by high mortality. Dissection should be thought of in young people with chest pain, especially in young women.

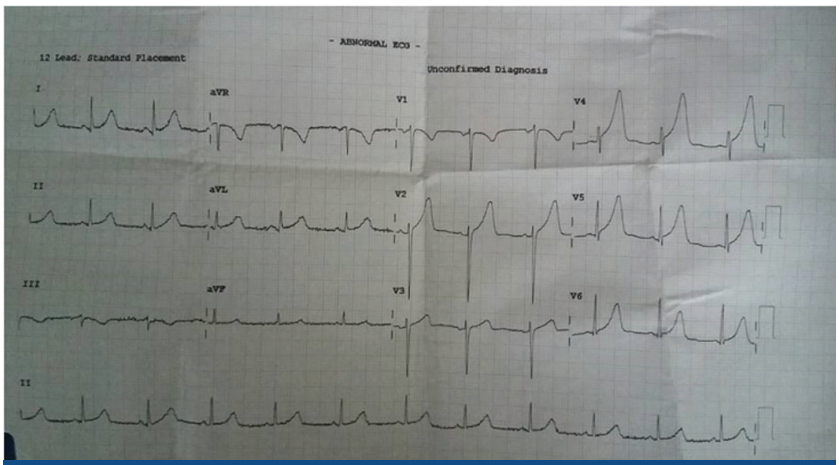

FIGURE 1. Initial 12-lead electrocardiogram, 4 days before hospitalisation, revealing anterolateral ST-segment changes (in leads D1, aVL and V2-V6).

RECEIVED:
August 1, 2019
ACCEPTED:
September 16, 2019

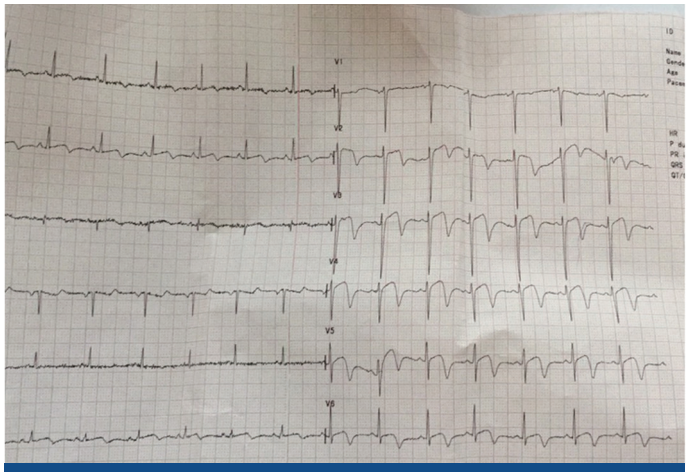

FIGURE 2. 12-lead electrocardiagram shows prominent anterior T wave inversions.

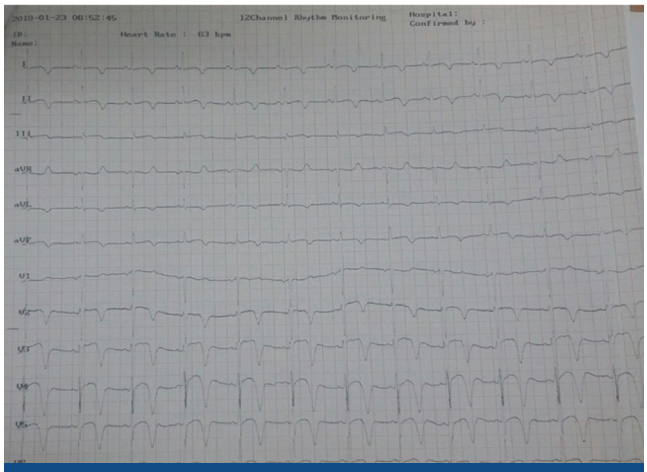

FIGURE 3. 12-lead electrocardiogram shows negative T-wave inversion in leads D1, D2, aVL and V2-V6.

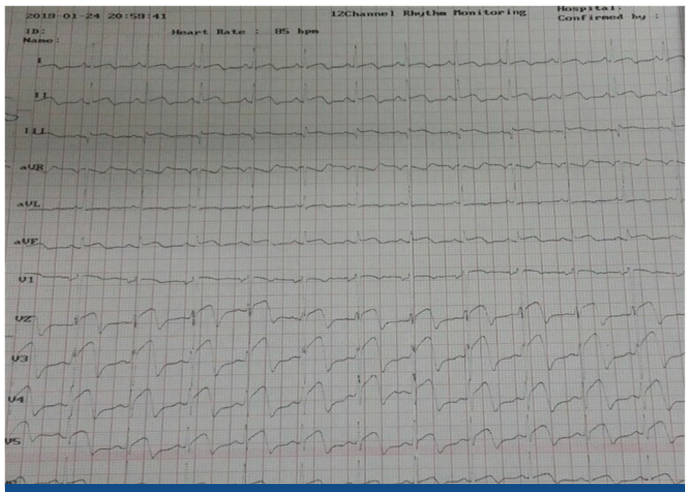

FIGURE 4. 4. ST-segment elevations in leads D2, D3, aVF and V2-V6.

LITERATURE

1. Sabatine MS, Jaffer FA, Staats PN, Stone JR. Case records of the Massachusetts General Hospital. Case 28-2010. A 32-year-old woman, 3 weeks post partum, with substernal chest pain. N Engl J Med. 2010 Sep 16;363(12):1164-73. https://doi.org/10.1056/NEJMcpc1000966
2. Kamran M, Guptan A, Bogal M. Spontaneous coronary artery dissection: case series and review. J Invasive Cardiol. 2008 Oct;20(10):553-9. **PubMed:** https://www.ncbi.nlm.nih.gov/pubmed/18830003