

Acute coronary syndrome due to intramural hematoma

Vlasta Soukup Podravec*,
Kristina Milevoj Križić,
Ivana Petrović Juren,
Andreja Čleković-Kovačić,
Sandra Prša

Bjelovar General Hospital,
Bjelovar, Croatia

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***ADDRESS FOR CORRESPONDENCE:** Vlasta Soukup Podravec, Opća bolnica Bjelovar, Mihanovićeveva 8, HR-43000 Bjelovar, Croatia. / Phone: +385-99-5951-416 / E-mail: vlasta.soukuppodravec@gmail.com

ORCID: Vlasta Soukup Podravec, <https://orcid.org/0000-0002-4605-0068> • Kristina Milevoj Križić, <https://orcid.org/0000-0003-2115-3076> • Ivana Petrović Juren, <https://orcid.org/0000-0002-2793-3455> • Andreja Čleković-Kovačić, <https://orcid.org/0000-0002-4532-3597> • Sandra Prša, <https://orcid.org/0000-0001-9639-3918>

Introduction: Coronary intramural hematoma is defined as an accumulation of blood within the media of artery without intimal disruption.¹⁻⁴ It is a rare cause of acute coronary syndrome. Several factors such as the pre- and postpartum periods, trauma, hypertension, vasculitis, fibromuscular dysplasia, and the use of contraceptives may potentially relate to this phenomenon, yet this patient did not possess any of them. The most common profile is a middle-aged woman with few cardiovascular risk factors.

Case report: 60-year-old woman, smoker with history of untreated arterial hypertension, hyperlipidemia presented with retrosternal chest pain duration for 2 hours. Initial 12-lead electrocardiogram (ECG) showed elevated ST-segment in leads V4 to V6 and D1 and aVL. Patient received a loading dose of aspirin and ticagrelor and was transferred to a tertiary hospital for a coronary angiography which showed a subocclusively altered distal segment of the left anterior descending artery (LAD) up to the apex. Based on coronary angiography, it was concluded that it is most likely an intramural hematoma possibly caused by fibromuscular dysplasia. It was recommended to do a recoronarography in two months and to continue with dual antiplatelet therapy. A transthoracic echocardiogram showed normal global systolic function of the left ventricle with hypocontractility of the lateral wall. The patient was discharged after a few days in a very good condition. After two months recoronarography was performed which showed complete recanalization of the apical LAD. CT angiography of the renal arteries and supraaortic branches were also performed where no changes were found that would indicate fibromuscular dysplasia. The patient does not have chest pain anymore and she tolerates physical exertion well.

Conclusion: Diagnosis and treatment of intramural hematoma of the coronary artery is very challenging, because it is an overlooked diagnosis. Catheter-based angiography is validated for the diagnosis of coronary intramural hematoma. In a stable patient conservative approach is preferred because an intramural hematoma heals spontaneously. Dual antiplatelet therapy with aspirin and clopidogrel for one year is recommended followed by using aspirin alone indefinitely.

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