International Journal of Health Science

ISSN 2764-0159 vol. 5, n. 32, 2025

ARTICLE

Acceptance date: 19/11/2025

ACUTE CORONARY SYNDROME WITHOUT ST SEGMENT ELEVATION: FAVORABLE OUTCOME AFTER ANGIOPLASTY AND INTRACORONARY THROMBOLYSIS

Anna Beatriz Freire Smania
Ribeirão Preto University – UNAERP, Guarujá Campus; Guilherme Álvaro Hospital

Rodolfo Arante
Ribeirão Preto University – UNAERP, Guarujá Campus; Guilherme Álvaro Hospital

Rafael Almeida Lins
Ribeirão Preto University – UNAERP, Guarujá Campus; Guilherme Álvaro Hospital

Fernanda Douradinho
Ribeirão Preto University – UNAERP, Guarujá Campus; Guilherme Álvaro Hospital

Vitor Antonio Rocha Monteiro
Ribeirão Preto University – UNAERP, Guarujá Campus; Guilherme Álvaro Hospital

Abstract: Introduction: We describe a case of SCASSST with critical injury in the left anterior descending artery and intracoronary thrombosis treated with angioplasty associated with thrombolysis, evolving with a favorable h y outcome. Case report: A 70-year-old male patient, heavy smoker, presented with severe chest pain and underwent angioplasty and intracoronary thrombolysis with successful reperfusion. Discussion: The case highlights the importance of early intervention in high-risk SCASSST and reinforces the relevance of strict control of risk factors. Conclusion: Angioplasty associated with intracoronary thrombolysis was essential for the favorable outcome, highlighting the importance of an invasive and early approach.

Introduction

Acute coronary syndrome without ST-segment elevation (NSTEMI) is a critical manifestation of coronary artery disease, responsible for high morbidity and mortality, especially in cases of critical lesions in major arteries, such as the left anterior descending artery (LAD). This report describes a case of NSTEMI with intracoronary thrombosis treated with angioplasty associated with intracoronary thrombolysis, with a favorable outcome.

Case Report

A 70-year-old male patient, a heavy smoker since childhood and with high sodium intake, with no previously known comorbidities, presented with chest pain for one month, triggered by exertion and relieved by rest. On May 2, 2025, he presented with intense chest pain upon waking, which recurred with exertion at work, prompting him to seek care at the emergency care unit, where he received ASA and clopidogrel and was referred to Guilherme Álvaro Hospital.

During transport, he received morphine and started IV nitroglycerin. Coronary angiography showed right dominance, proximal occlusion of the ADA, severe lesion in the marginal branch of the LCA, and irregularities in the right coronary artery. Intracoronary thrombolysis with alteplase 10 mg, followed by angioplasty with drug-eluting stent implantation in the LCA, with successful reperfusion.

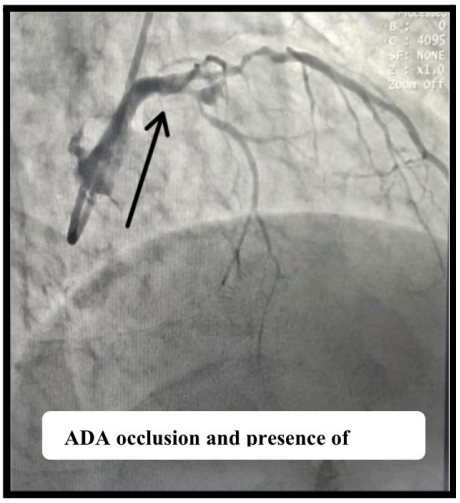
Echocardiogram showed mild ventricular dysfunction (LVEF 42%), slight enlargement of the left atrium, and akinesia of the apical and anterior septal segments. Laboratory tests showed initial leukocytosis, elevated CRP, and slight worsening of renal function, but he progressed hemodynamically stable, without pain, remaining in the coronary care unit. He was discharged from the hospital in good general condition, with dual antiplatelet therapy, statin, beta-blocker, and guidance for smoking cessation and sodium restriction.

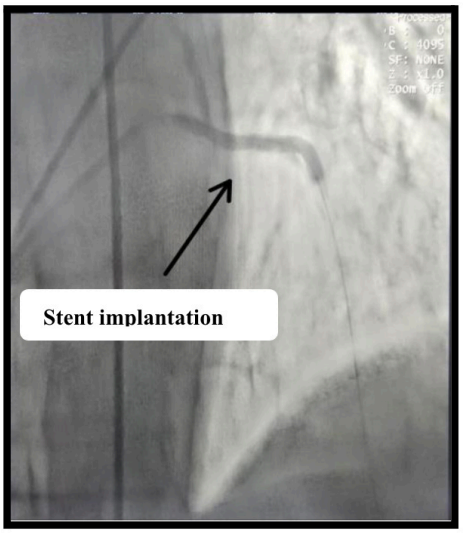
Discussion

This case highlights the importance of risk stratification and early invasive approach in SCASSST, especially in patients with critical LAD lesions, associated with a high risk of adverse events and progression to transmural infarction if not addressed quickly. The choice of intracoronary thrombolysis, although less frequent in current

practice, was fundamental due to the presence of thrombus and unfavorable anatomy, contributing to the restoration of flow and facilitating subsequent angioplasty.

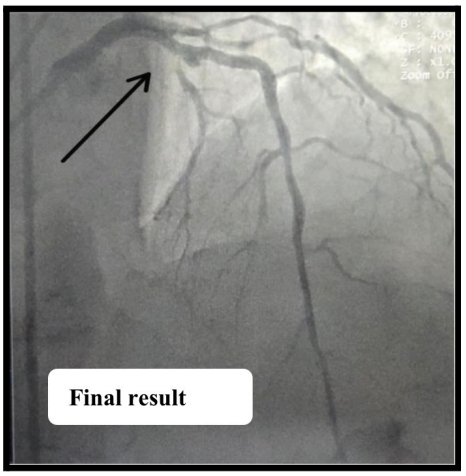
In addition, the relevance of strict control of risk factors, especially extreme smoking and high sodium consumption, which contributed to the progression of the disease, should be highlighted. The favorable outcome with partial preservation of ventricular function demonstrates the positive impact of early and appropriate management, emphasizing the need for structured outpatient follow-up and cardiac rehabilitation to prevent new events.





Conclusion

Early intervention with intracoronary thrombolysis associated with angioplasty was essential for a favorable outcome in patients with SCASSST and critical ADA occlusion, demonstrating the importance of an individualized approach and strict control of risk factors. This re y report reinforces the value of the multidisciplinary team's role in rehabilitation, prevention of readmissions, and optimization of prognosis in patients with coronary artery disease.



References

1. Sociedade Brasileira de Cardiologia. Diretriz de síndrome coronariana aguda sem supradesnivelamento do segmento ST – 2021. Arq Bras Cardiol. 2021;116(1):181-264.

2. Ibanez B, James S, Agewall S, et al. 2017 ESC Guidelines for the management of acute myocardial infarction in patients presenting with ST-segment elevation. Eur Heart J. 2018;39(2):119-177.

3. Goyal A, Alexander KP, Cannon CP, et al. Management of Acute Coronary Syndrome. JAMA. 2022;327(7):662-675.

4. Yusuf S, Hawken S, Ôunpuu S, et al. Effect of potentially modifiable risk factors associated with myocardial infarction in 52 countries (the INTERHEART study): case-control study. Lancet. 2004;364(9438):937-952.

5. Braunwald E. Tratado de Doenças Cardiovasculares. 11ª ed. Elsevier; 2019.