

# Case Report: Percutaneous Coronary Intervention in the Treatment of Unstable Angina

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## Abstract

Occlusion of the left coronary trunk is severe and has significant symptoms, increasing the chances of cardiovascular events even more, since its occlusion compromises left ventricular flow if there is no collateral circulation. For many years in coronary trunk lesions revascularization was the method of choice, however recent studies have been showing good results with the Percutaneous Coronary Intervention (PCI). We report a case of a 91-year-old woman with an important lesion of the left coronary artery (TBI) who underwent percutaneous angioplasty and pharmacological stent placement with good clinical recovery.

**Keywords:** Left coronary trunk; Myocardial revascularization; Percutaneous coronary intervention

## Introduction

Acute coronary syndrome (ACS) is the term used when there is suspicion or confirmation of myocardial ischemia. There are three types of ACS: acute myocardial infarction without ST-segment elevation (NSTEMI), acute ST-segment elevation myocardial infarction (STEMI), and unstable angina (AI). The AI differs from the others by not releasing detectable amounts of biochemical markers of myocardial necrosis, since ischemia is not sufficient to cause significant damage. Electrocardiographic changes such as ST-segment depression and T-wave inversion may or may not be present [1].

Unstable angina is an important cause of hospital admission. The Braunwald classification, proposed in 1989 to facilitate patient risk stratification, takes into account the severity of anginal symptoms, clinical circumstances and the intensity of current drug treatment. There is also a classification of the same author that divides patients according to the risk for death and/or nonfatal Acute Myocardial Infarction (AMI) based on clinical criteria (Guidelines of the Brazilian Society of Cardiology on Unstable Angina and Acute myocardial infarction without supplemental Level of the ST Segment (II Edition) [2].

The prognosis for unfavorable events, such as death, recurrence of angina, Acute Myocardial Infarction (AMI) and need for myocardial revascularization in patients with UA is variable (Guidelines of the Brazilian Society of Cardiology on Unstable Angina and Acute myocardial infarction without supplemental Level of the ST Segment (II Edition)). The elderly population suffers major impacts of cardiovascular diseases and complications, requiring extensive and careful treatment. We report the case of a 90-year-old woman with angina at rest due to left coronary trunk obstruction (Guidelines of the Brazilian Society of Cardiology on Unstable Angina and Acute Myocardial Infarction without ST segment depression (II Edition)).

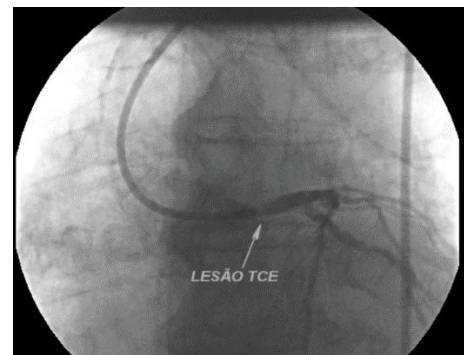
## Case Presentation

A 91-year-old woman with a history of dyslipidemia, systemic arterial hypertension, and cardiac catheterization (CATE). She reported chest pain on burning after efforts that progressed to rest with irradiation to the mandible, physical examination without alterations and electrocardiogram with abnormal diffuse ventricular repolarization, being prescribed substrate and Vastarel for clinical observation. Due to the persistence of the symptomatology with the medication, a CATE

was chosen, which showed a 90% lesion of the left main coronary artery (TBI) and proximal lesion of the Anterior Descending artery (AD) (Figure 1). Coronary transluminal angioplasty (TCA) of TBI was performed with pharmacological stent guided to the proximal third of AD, and mid-ATCA with a balloon catheter, both with success (Figures 2 and 3). The patient had a significant improvement in angina after the procedure and progressed well asymptomatic after two years of the procedure.

## Discussion and Conclusion

Changes in risk factors, such as cessation of smoking, blood pressure control, physical activity and body weight reduction should be introduced independently of the revascularization method [3,4]. The occlusion of the left coronary trunk is severe and of significant symptomatology, it increases the chances of cardiovascular events even more, since its occlusion compromises the left ventricle flow in 75%



**Figure 1:** Left main coronary artery (TBI) and proximal lesion of the anterior descending artery (AD).

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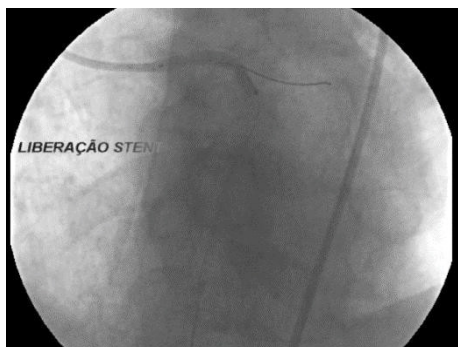


Figure 2: Coronary transluminal angioplasty.



Figure 3: Coronary transluminal angioplasty.

if it does not have collateral circulation. Without revascularization, survival is low [5-7]. The good results of coronary artery bypass surgery and its high survival rate are already known. However, percutaneous coronary intervention (PCI) with stenting was initiated in patients who had no surgical indication and has been showing good results as well. Today, randomized trials already show the equivalence between the

two approaches to revascularization for coronary trunk lesions [8,9]. In hemodynamically unstable patients, PCI is the safest method of choice. Given the current studies and the advanced age of the patient, PCI was the method used in the case, resulting in excellent results and patient satisfaction.

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