ANCHORING BALLOON TECHNIQUE TO ACHIEVE GUIDE WIRE PASSAGE THROUGH THE COMPLEX LESION IN PRIMARY CORONARY ANGIOPLASTY OF ACUTE MYOCARDIAL INFARCTION

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Akut anterior miyokard enfarktusü ile başvuran bir hastada, kılavuz telin yan dala gitmesi nedeniyle yan dalı balon ile tıkayıp ana damara geçme yöntemi uygulandı. Hastada başarı ile reperfüzyon sağlandı.

Anahtar kelimer: Perkutan koroner girişim, Akut miyokard infarktüsü, Çıpalama balon tekniği

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INTRODUCTION

The anchor balloon technique is very useful in increasing success rates in chronic total occlusions[1]. By inflating a balloon in a nontarget vessel and holding its shaft with backward force while advancing another guide wire, the anchor effect for the guiding catheter could be obtained and it appeared to be helpful for a guide wire or a balloon to cross the target lesion. We tried this method in primary coronary angioplasty of acute myocardial infarction.

CASE REPORT

A 56 years old man presented with acute anterior myocardial infarction. Primary percutaneous coronary intervention planned. Angiography demostrated left anterior descending coronary artery (LAD) ostial total occlusion (Figure 1). Using a 6 F JL 4 guiding catheter, a 0.014 in guide wire was introduced into the LAD. Guide wire cross through the 1.diagonal branch of LAD. Inflation was done with 2.0*12 mm Troya balloon on nominal pressure at the LAD ostial position. The lesion was difficult to cross since LAD had a total occlusion just distal to 1. diagonal branch. Second guide wire also cross through the 1.diagonal branch of LAD. Inflation was done with 2.0*12mm Troya balloon on 4 atm pressure at the 1. Diagonal branch of LAD. So 1.Diagonal branch of LAD occluded with balloon inflation. Then second guide wire crossed the LAD total occlusion (Figure 2). Finally LAD ostial lesion stented with Ephesos stent 3.0*20 mm (Figure 3). The patient was treated with intraveous heparin for 48 h and discharged on aspirin and clopidogrel. At 3 months follow up the patient was free of ischemic events.

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DISCUSSION

The primary reason for unsuccessful angioplasty of chronic total occlusions is an inability to pass the guidewire through the occlusion. Optimal guiding catheter support is a prerequisite for successful angioplasty of chronic total occlusion. By inflating a balloon in a nontarget vessel and holding its shaft with backward force while advancing another balloon, the anchor effect for the guiding catheter could be obtained and it appeared to be helpful for a balloon or a stent to cross the target lesion[2,3].

Figure 1: Before Intervention

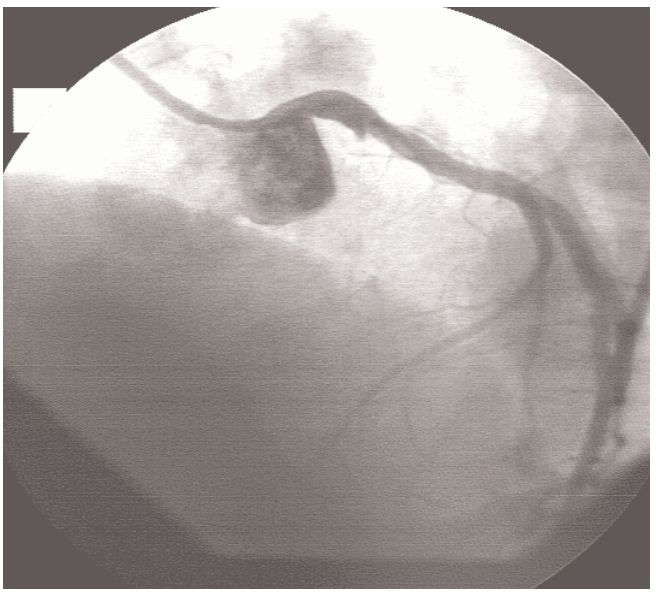

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Figure 2: Before Intervention

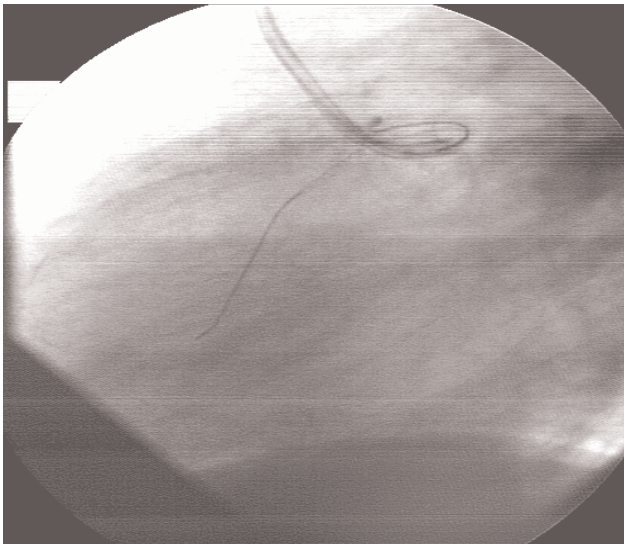
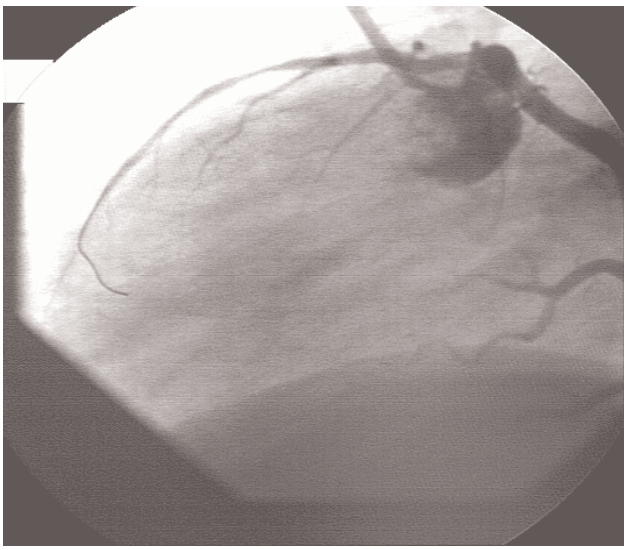


Figure 3: Final result



The present case demostrates that if the main artery segment cannot be crossed and the guide wire enters a side branch of an artery because of the total occlusion of the artery just after the side branch. In this situation, side branch can be occluded with balloon inflation at lower pressure and second guide wire can be passed through main artery segment and succesful stenting can be done. With this novel anchoring technique, we successfully achieved guidewire passage through the complex lesion.

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