

# Role of Intravascular Ultrasound in Prediction of Acute Side Branch Occlusion in Coronary Artery Bifurcation Lesions Just After Provisional Stenting

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## **BACKGROUND:**

Coronary bifurcation lesion is important subject in percutaneous coronary intervention (PCI). While much progress has been made in PCI facilities, bifurcation stenting still has a lot of problems.

## **OBJECTIVE:**

The aim of this study was the usefulness of intravascular ultrasound (IVUS) to help in the prediction of occlusion of side branch (SB) after stenting the main vessel (MV) in bifurcation lesions.

## **METHODS:**

The period of this study was from May 2019 to December 2020, and included 80 patients who were submitted for elective coronary angiography to the cardiology department at Maadi Military Hospital, and showed bifurcation lesions treated with provisional stenting using IVUS measurements.

## **RESULTS:**

This study included two groups according to the occlusion of SB after main vessel stenting. The 1st group had the patients with occlusion of SB (n= 18) and the 2nd group had the patients without occlusion of SB (n= 62). The thinner plaque of main vessel (MV) at junction position with SB, MV plaque area and diameter ratio of SB were the factors which could predict acute occlusion of SB after provisional stenting.

## **CONCLUSION:**

In coronary bifurcation lesions, we can use intravascular ultrasound (IVUS) to help in the prediction of occlusion of SB after provisional stenting, and these predictors can help the operators to prepare the best strategy for treating bifurcation lesions.

## **KEYWORDS:**

Provisional Stenting; Bifurcation Lesion; Intravascular Ultrasound; Coronary; Ischemic Heart

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