



PTCA IN POST CABG PATIENTS PRESENTING WITH ACS: EXPERIENCE FROM A TERTIARY CARE CENTRE.

Cardiology

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ABSTRACT

Background: Due to an expanding population of patients with surgically treated coronary artery disease and the natural progression, of atherosclerosis, an increasing number of patients with previous CABG require repeat revascularization procedures. **Aim:** To know the presentation, angiographic findings and feasibility of PTCA in Post CABG patients who presented with ACS. **Methods And Results :** The present study was a retrospective analysis of data available in the department of cardiology, Kalinga institute of medical sciences, a tertiary care centre. During 2017 - 2022, 113 patients who previously underwent CABG and now presented with ACS were enrolled. Mean time of presentation after CABG was 6.7 years. Mean age was 58.63 years. Presentation was STEMI, NSTEMI, UA in 23 (20.35%), 55 (48.68%), 35 (30.97%) respectively. After CAG, PTCA, medical management and re CABG were advised for 89 (78.76%), 20 (17.70%) 4 (3.54%) patients respectively. In 89 patients who were advised for PTCA, at CAG, 128 lesions were identified, 112 (87.5%) in native vessels with total and subtotal occlusion present in 29 (22.65%) and 21 (16.40%) patients in LAD, 22 (17.19%) and 16 (12.5%) in RCA, 13 (10.15%) and 11 (8.59%) in LCX respectively. 13 (10.10%) had lesion in SVG graft. 3 (2.35%) had lesion in LIMA graft. PTCA was attempted in all the 128 lesions, with DES. 98 lesions (76.5%) were successfully revascularized with PTCA. Procedural failure in native vessels may be attributed to inability to cross the CTOs, heavily calcified vessels. Lesions in graft vessels where revascularized with ease when compared to native vessels. **Conclusion:** PTCA in patients with post CABG status who presented with ACS, was successful with minimal procedural complications. PTCA may be considered in this special population where redo surgery was associated with significant mortality.

KEYWORDS

Post CABG, PCI, PTCA, Acute coronary Syndromes.

INTRODUCTION

Coronary artery bypass grafting (CABG) has been an established therapy for patients with obstructive coronary artery disease since the 1970s, with a major impact on symptoms⁽¹⁾ and in some subsets on mortality and subsequent cardiovascular events⁽²⁾. The progression of native coronary atherosclerosis and saphenous vein graft disease during long-term follow-up, has led to an increase in the proportion of patients with an acute coronary syndrome (ACS) who have previously undergone CABG⁽³⁾. In patients with an ACS, prior CABG is not uncommon and associated with worse clinical outcomes^(4,5). As current guidelines recommend an invasive treatment strategy in these patients, coronary angiography and percutaneous coronary intervention (PCI) are often performed to detect and treat culprit lesions⁽⁶⁾. These culprits can be located in native coronary arteries, bypass grafts, or can be absent. Although there are randomized comparative data for CABG versus medical therapy and, more recently, versus PTCA, these studies have excluded patients with previous CABG. This study aimed to investigate the presentation, angiographic profiles and management strategies among post-CABG patients presenting with ACS at a tertiary care cardiac centre.

Methodology:

This retrospective observational study was started after taking approval from the institutional ethics committee. All patients with ACS with a prior history of CABG presenting to the department of Cardiology, Kalinga institute of medical sciences, a tertiary care centre, and undergoing coronary angiography from Jan 2017 and october 2022 were enrolled. Data was collected from hospital discharge records and the catheterisation laboratory database. All the data was compiled in excel and relevant statistical methods were used for analysis and crucial finding were obtained.

RESULT AND DISCUSSION:

A total of 113 patients were included for the final analysis. Mean time of presentation after CABG was 9.7 years. The mean age of the study population was 58.63 ± 8.34 years, with 82.56% being male. The majority of post-CABG ACS patients presented with non-ST segment elevation myocardial infarction (NSTEMI; 48.68%), with lower proportions presenting with unstable angina (30.97%) and STEMI (20.35%), (Figure:1). The majority of patients (64.1%) underwent angiography and graft study by left radial approach, followed by right radial (24.2%), right femoral (11.2%) and left ulnar approach (0.4%),

(Figure:2). A trend towards more radial intervention was observed as the years progressed.

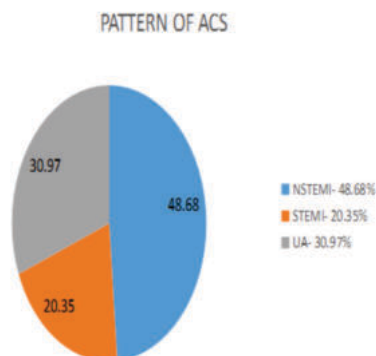


Figure 1: Type Of Acute Coronary Syndrome Presentation.

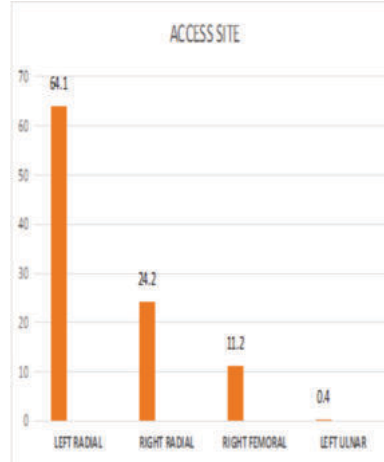


Figure 2: Access Site For Cag.

In terms of management strategy, almost three- fourths of the patients

(n=89; 78.76%) were recommended revascularisation by percutaneous coronary intervention (PCI), 20 (17.70%) were treated with optimal medical therapy and 4 (3.54%) were referred to have CABG carried out again (Figure 3).

In 89 patients who were advised for PTCA, at CAG, 128 lesions were identified, 112 (87.5%) in native vessels, 13 (10.15%) had lesion in SVG graft, 3 (2.35%) had lesion in LIMA graft.

Total and Subtotal occlusion present in 29 (22.65%) and 21(16.40%) patients in LAD, 22(17.19%) and 16(12.5%) in RCA, 13(10.15%) and 11(8.59%) in LCX respectively (Figure 4).

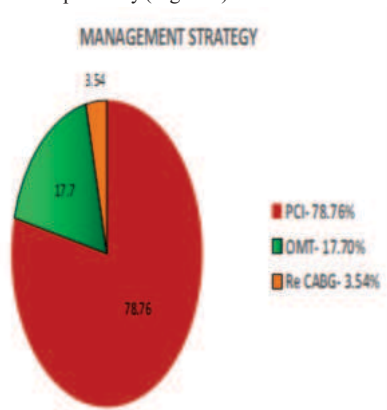


Figure 3: Management Strategy .

PTCA was attempted in all the 128 lesions, with DES. 98 lesions (76.5%) were successfully revascularized with PTCA. 82 lesions (73.21%) in native vessels and all 16 lesions (100%) in graft vessels were revascularized successfully. Procedural failure in native vessels may be attributed to inability to cross the CTOs, heavily calcified vessels. Lesions in graft vessels were revascularized with ease when compared to native vessels.

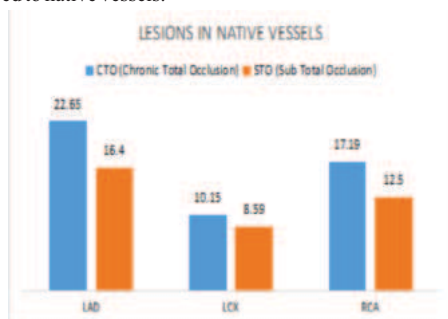


Figure 4: Distribution Of Lesions In Native Vessels

CONCLUSION:

The most common ACS presentation in post-CABG patient population was NSTEMI, with male predominance. PCI the recommended management strategy in the majority. PTCA in patients with post CABG status who presented with ACS, was successful with minimal procedural complications. PTCA may be considered in this special population where redo surgery was associated with significant mortality.

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