

ABSTRACT

“CLINICAL AND ANGIOGRAPHIC PROFILE, AND MANAGEMENT TRENDS IN PATIENTS PRESENTING WITH CORONARY CHRONIC TOTAL OCCLUSIONS IN A TERTIARY CARE CENTRE IN SOUTH INDIA”

Keywords- Chronic total occlusion, Coronary artery disease, SYNTAX score, Universal Technical difficulty score

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AIM AND OBJECTIVES:

The purpose of this study was to delineate the clinical profile and angiographic characteristics of consecutive patients diagnosed with chronic coronary total occlusions in a tertiary care hospital in India and observing the “real world” management trends for such patients.

MATERIAL AND METHODS:

This single centre prospective non-randomized observational study enrolled 66 consecutive patients diagnosed with CTO. The clinical and angiographic characteristics of these patients ((including calculation of SYNTAX score for each patient and a unique technical difficulty rating for each CTO lesion) and the management decisions subsequently undertaken in them were studied. Continuous variables were expressed using mean \pm S.D. or median with ranges, categorical variables as frequencies and percentages. Categorical variables were analysed with Chi square test /Fisher’s exact test and continuous variables with unpaired students *t* test with p values less than 0.05 considered stastically significant.

RESULTS :

Out of the 66 patients with CTO enrolled, 89% were males with mean age 59 years, 85% were symptomatic having angina NYHA class II or more. 55 % of the patients had systemic hypertension, 39% had diabetes mellitus, and only 17% had LVEF < 40%. More than half of patients had CTO whose duration couldn't be discerned, with these patients predominantly undergoing CABG subsequently and also having the majority of unsuccessful PCI. About half of the patients enrolled had no history of prior ACS or MI, three months or earlier before presentation. Multivessel CAD was present in more than 90% CTO patients with around 80% of patients having a SYNTAX score of 23 or above. Median SYNTAX scores were highest in patients who had CABG and least with PCI group (p value 0.04) pointing towards management trends conforming to international guidelines. RCA was the most commonly involved CTO vessel in 49% patients and the majority of patients with RCA CTO had unsuccessful PCI. Patients having CAD risk factors like diabetes and hypertension, and angiographic characteristics like bridging collaterals, blunt stump, and longer length had technical difficulty rating of A2B0 were found to have the maximum failure with PCI. The success rate of PCI at our centre was 76% comparable to international standards. The six month follow up of CTO patients showed improvement in NYHA class of symptoms in all three treatment allocation groups with the revascularization cohort having maximum benefit.

CONCLUSIONS:

This study brings forth the clinical and angiographic data in contemporary practice in India and real world management trends with regard to coronary CTOs in addition to delineating probable factors associated with success of revascularization of this complex subset of coronary lesions, also showing a probable benefit of revascularization in these patients at a six month follow up.