Antianginal Therapy Before Percutaneous Coronary Intervention in Stable Angina---a retrospective audit

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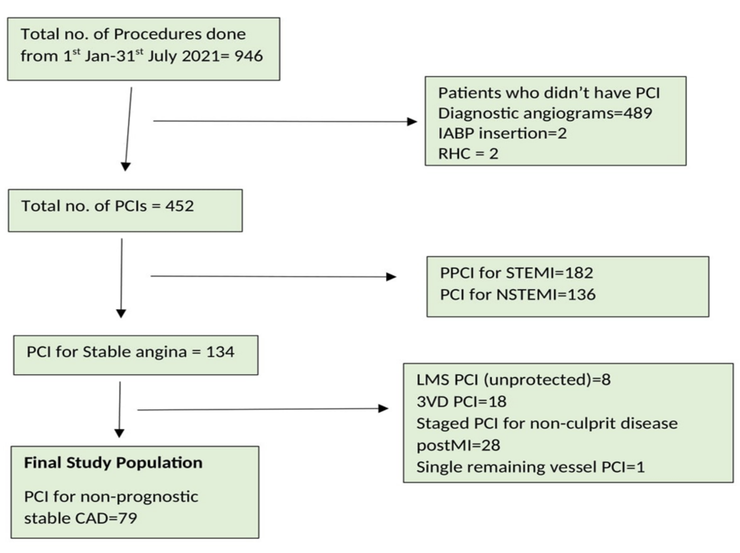
INTRODUCTION

The first percutaneous transluminal coronary angioplasty was performed in September 1977 by Andreas Gruentzig, a Swiss radiologist, in Zurich. Angina relief remains the primary reason for percutaneous coronary intervention (PCI) in stable coronary artery disease (CAD). Major recent clinical trials such as COURAGE, ORBITA and ISCHEMIA trial have shown that PCI is not superior compared to optimal medical therapy. Consequently, clinical practice guidelines recommend antianginal medication as first line therapy, with PCI reserved for patients who remain symptomatic despite optimal antianginal medications (≥2 classes of anti-anginal drugs). The aim of our audit was to assess the use of optimal antianginal medications in patients having PCI for stable angina.

METHODS AND RESULTS

This retrospective audit was performed at Ninewells Hospital, Dundee. Using electronic medical records, we audited patients undergoing elective PCI for stable coronary artery disease from January 1, 2021, through July 31, 2021, and determined the use of antianginal medicines before PCI.



There were 452 PCI procedures performed during the duration of audit. We excluded patients who had PCI for prognostic CAD (Acute Coronary Syndrome (ACS), Left Main Stem disease, 3-vessel disease, staged PCI in post-ACS patients). We identified 79 PCI procedures done for non-prognostic disease.

Demographics of the patients with Stable Angina who had PCI for non-prognostic disease

Total no.	79
Age (Mean ± SD)	68.01 ± 10.78
Male (%)	61 (77.2%)
Patients with prior diagnosis of CVD (%)*	65 (82.3%)

** Prior CVD: eg, recent positive MPS, prior myocardial infarction, PCI, CABG, peripheral artery disease, or cerebrovascular disease*

Among these 79 PCI procedures, 10.1%, 38.0%, 31.6%, and 20.3% of patients were on 0, 1, 2, or ≥3 antianginal medications, respectively. The proportion of patients on ≥2 antianginal medications before PCI was only 51.9%.

Individual Antianginal Medications among patients with Stable Angina who had PCI for non-prognostic disease

B-blocker	56 (70.9%)
CCB	22 (27.8%)
Long-acting nitrate	42 (53.2%)
Ranolazine	3 (3.8%)
Other antianginal	8 (10.1%)

No. of antianginal medications among patients with Stable Angina who had PCI for non-prognostic disease

0	8 (10.1%)
1	30 (38.0%)
2	25 (31.6%)
≥3	16 (20.3%)
Patients receiving ≥2 antianginal therapies before PCI	41 (51.9%)

CONCLUSIONS

Nearly half of patients having elective PCI for stable angina were not on optimal antianginal therapy. Our audit suggests that there is room for further optimisation of anti-anginal therapy in patients attending elective PCI.

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