# *Clinical characteristics and treatment of patients with ischemic heart disease underwent percutaneous coronary Intervention (PCI): an African experience from a tertiary hospital*

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## INTRODUCTION

Coronary artery disease is the leading cause of death in the world. Percutaneous coronary intervention (PCI) is needed to manage patients with ischemic heart disease. No data about the status of PCI in Sudan. We aimed to assess clinical characteristics in patients who underwent percutaneous coronary intervention (PCI).

## METHODOLOGY

We conducted a prospective cohort study at a tertiary hospital for all consecutive patients who underwent PCI from November 2020 to the 18th of February 2021. All patients with ischemic heart disease who underwent PCI were included. Drug-eluting stents (DES) were used during PCI. Data were presented as number (percentage) and mean ± standard deviation.

## RESULTS

The study included 124 patients with a mean age of 57.5 ± 9.6 were included. More than two-thirds of them were male (74.0%). Diabetes (44.4%) followed by hypertension (40.3%) were the most common risk factors. STEMI (61.0%) and NSTEMI (25.2%) were the most common diagnosis in patients with ischemic heart disease.

Regarding PCI, 100 (85.5%) participants underwent PCI via femoral access, and most of them needed one stent (55.5%) or two stents (32.7%). The majority of participants had either one vessel (61.9%) or two vessels (24.6%) that need intervention by PCI. Mid-distal left anterior descending artery (LAD) (44.9%), proximal LAD (39.0%) and right coronary artery (RCA) (36.4%) were the most common vessels that underwent intervention by PCI.

## CONCLUSION

Our results showed that most of need PCI in one vessel. Also, mid-distal LAD, proximal LAD, and RCA were the most vessels that needed PCI in patients with ischemic heart disease.

## Table

| | | |
|---|---|---|
| **Vascular access** | 117 | |
| Femoral | | 100 (85.5%) |
| Radial | | 17 (14.5%) |
| **Treated vessel during PCI** | | |
| Left main trunk artery (LMT) | 118 | 2 (1.7%) |
| Proximal left anterior descending artery (LAD) | 118 | 46 (39.0%) |
| Mid-distal LAD | 118 | 53 (44.9%) |
| Circumflex artery | 118 | 35 (29.7%) |
| Right Coronary Artery(RCA) | 118 | 43 (36.4%) |
| Ramus | 118 | 1 (0.8%) |
| Bypass graft lesions | 118 | 0 (0.0%) |
| Other | 118 | 3 (2.5%) |
| **Number of intervented vessels** | 118 | |
| 1 | | 73 (61.9%) |
| 2 | | 29 (24.6%) |
| 3 | | 13 (11.0%) |
| 4 | | 2 (1.7%) |
| 5 | | 1 (0.8%) |
| **Number of stents** | 110 | |
| 0 | | 1 (0.9%) |
| 1 | | 61 (55.5%) |
| 2 | | 36 (32.7%) |
| 3 | | 7 (6.4%) |
| 4 | | 3 (2.7%) |
| 6 | | 2 (1.8%) |