

# **Demographic Data of the Egyptian Population of the CTO overlasting 8 Years at Critical Care Center-Cairo University**

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## **Abstract**

**Objective:** A retrograde retrospective study that aimed at registering our elective PCI for CTO procedures, with respect to their procedure details, outcome, in-hospital complications. We tried to determine our performance in comparison to other registries and to find out risk factors associated with outcomes during the period from January 2006 to December 2013.

**Design, setting and participants:** Retrospective analysis of data, retrieved through reviewing written paper and electronic database. A total number of 3517(30.85%) patients were diagnosed with coronary chronic total occlusion out of 11400 case were admitted to the critical department for coronary angiogram, out of which 3091 cases were recommended to optimize medical therapy and 1486 cases were sent for CABG without a trial of PCI. The material of the study included 426 patients (330 male and 96 females) who proceeded to PCI for CTO.

**Main outcome measures:** Clinical events including myocardial infarction (MI), haemodynamic instability, during the in-hospital stay .

**Results:** The cohort was predominantly male (77.5%), with a mean age of 53 years (SD, 8 years). We had a variety of PCI procedures. BMS stenting shared up to 36.6% of our pts, while DES shared up to 33.1% & PTCA shared up to 2.8%. Failed PCI contributed to 21.8% of total patients' interventions. In the overall cohort, rates of clinical events were low during the hospital stay: mortality (0%), MI (0.2%) with one reported case (0.2%) of urgent revascularization. Angiographic complications, irrelevant to post-PCI TIMI flow pattern, occurred in 8.2% of cases in our registry. Clinical success was achieved in 78.2% of cases. Year 2006 had complication rate of 3.5% and it inclined till it reached 23.7% in 2009 then declined till it reached 13.1% in 2013.

**Conclusion:** Our clinical event rates were comparable with other international registries outcomes. Through reviewing and comparing our data, we concluded that our experience is comparable to other registries. We differed in our demographic features which affected our patients' characteristics. This confirmed our need to establish our own registries, based on our real-life scenarios in developing countries where patients' demographics differ significantly, despite close results which might not be true on larger scale studies.

**Keywords:** PCI CTO registry, PTCA, BMS, DES, failed PCI

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**Main outcome measures:** Clinical events including myocardial infarction (MI), haemodynamic instability, during the in-hospital stay.

**Results:** The cohort was predominantly male (77.5%), with a mean age of 53 years (SD, 8 years). We had a wide variety of PCI procedures outcome. Successful PCI contributed 75.4% successful PTCA 2.8%, while failed PCI contributed 21.8%. A prevalence of patients had J-CTO scores 0 is 13% (100% successful PCI), J-CTO scores 1 is 35% (87.2% successful PCI, 4.3% successful PTCA, 8.5% failed PCI), J-CTO scores 2 is 29% (79.2% successful PCI, 3.9% successful PTCA, 16.9% failed PCI), a J-CTO score 3 is 16% (69.8% successful PCI, 30.2% failed PCI) and J-CTO scores 4 is 7% (47.1% successful PCI, 11.8% successful PTCA, 41.2% failed PCI). Angiographic complications, irrelevant to post-PCI TIMI flow pattern, occurred in 8.2% of cases in our registry.

**Conclusion:** Our clinical event rates were comparable with other international registries outcomes. Through reviewing and comparing our data, we concluded that our experience is comparable to other registries. We differed in our demographic features which affected our patients' characteristics. This confirmed our need to establish our own registries, based on our real-life scenarios in developing countries where patients' demographics differ significantly, despite close results which might not be true on larger scale studies.

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