Abstract

Introduction: The ongoing developments in the coronary stents have resulted in significant improvement in the outcome of PCI in ACS patients.

Objectives*:* Assessment of the influence of BAS on the incidence of MACE and ISR after PCI in comparison with DES in high risk patients with ACS.

Design: A prospective, comparative, cohort, controlled, single-center study.

Setting: Critical care department in Kasr Al-ainy Hospital of Cairo University.

Patients: Forty patients diagnosed as NSTE-ACS with TIMI score ≥ 3, whose coronary angiography shows de novo CAD with ≥70 % luminal stenosis.

Intervention: All patients were subjected to informed consent, detailed history taking, careful physical examination, laboratory investigations; including cardiac enzymes and 12 lead ECG. Patients were divided into 2 groups according to the type of the stent; BAS for group (A) and DES for group (B).

Measurements: Angiographic data, PCI data and QCA parameters were recorded. MACE (including death, myocardial infarction, arrhythmia, heart failure, TLR and TVR) were reported during hospital stay and after 6 months.

Results: There were statistically significant differences in follow up QCA data between both groups after 6 months of PCI as regard late loss and late loss index. Compared to group (B), group (A) showed significantly higher late loss (0.5 ± 1.0 versus 0.0 ± 0.1; P value 0.049) and significantly higher late loss index (23% ± 48% versus 1 ± 5%; P value 0.05). Besides, the incidence of follow up MACE at 6 month was significantly higher (30%) in

group (A) versus (5%) in group (B) (P value 0.046) mainly due to significantly higher frequency of need for TLR (5% for group A versus 0% for group B, P value 0.024). However, the incidence of ISR within 6 months of PCI was insignificantly higher (20%) in group (A) versus (0%) in group (B) (P value 0.053).

Conclusion: DES is significantly superior to BAS in PCI of moderate to high risk patients with NSTE-ACS as regard clinical and angiographic parameters.

Key words: NSTE-ACS, PCI, QCA, DES, BAS, MACE, ISR.