

## Clinical Significance Of Periprocedural Cardiac Troponin T And Creatine Kinase-MB Variation In Drug Eluting Stent Era

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**Background and Objectives** : The myocardial injury during percutaneous coronary intervention(PCI) is reflected by rises in cardiac enzymes such as cardiac troponin T(cTnT) and creatine kinase MB(CK-MB). We have performed this study to assess whether periprocedural variation of such a marker can predict clinical outcomes in drug eluting stent era. **Materials and Methods** : We studied 198 consecutive patients presented with stable and unstable angina who were underwent PCI with drug eluting stent. Blood samples for cTnT and CK-MB was done before and after 24 hr PCI. Cardiac enzymes were normal in all patient before PCI. All patients were divided into 3 groups according to the cardiac enzyme levels after PCI [Group 1 (n=170); normal cTnT and CK-MB levels, Group 2 (n=17); increased cTnT levels with normal CK-MB levels, Group 3 (n=11); both cTnT and CK-MB levels were elevated]. The occurrence of major adverse cardiac events (MACE) was documented up to 6 month prospectively after PCI and were compared among three groups. **Results** : Clinical variables including age, male, left ventricular ejection fraction were not significantly different among three groups. Also angiographic findings including lesion length, vessel diameter and used stent length were not significantly different. Total MACE was occurred in 12/198 (6%) patients ( Cardiac death 2, MI 1, re-PCI 9). There was no significant difference of MACE among group 1 ( 6%), group 2 (6%) and group 3 (9%) (p=0.654). **Conclusion** : In drug-eluting stent era, periprocedural cTnT and CK-MB variation does not affect clinical outcomes after PCI

## Long-Term Safety of Overlapped Drug-Eluting Stents for Treating Diffuse Coronary Artery Disease

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**Background** : Diffuse coronary artery disease presents physicians with a therapeutic challenge. The introduction of drug-eluting stent (DES) has prompted interventional cardiologists to treat long diffuse lesions with multiple overlapping stents. But, Limited data exist regarding use of drug-eluting stents outside of approved indications in real-world settings, especillay multiple stent era. To determine the safety and effectiveness of drug-eluting stents for long lesions with overlapped stent in percutaneous coronary intervention (PCI). **Methods** : Observational, retrospective, multicenter registry to evaluate in-hospital, 30-day, and 1-year outcomes among patients undergoing PCI in community medical centers. Consecutive 119 patients suffering with diffuse coronary artery disease who underwent stent implantation with a long BMSs or DESs were analyzed. The patients who had overlapping stents for dissection without diffuse lesion or they had BMS with overlapping DES were excluded from the study. The patients were divided into two group, the BMS group (group I: 36 patients, 62.6±7.8 years) and the DES group (group II: 83 patients, 61.2±9.3 years). The major adverse cardiac events (MACE), including death, myocardial infarction (MI), target vessel revascularization (TVR) were examined. **Results** : Total mean length of the stents was 59.6±9.73 mm in group I and 58.6±10.3 mm in group II (p=NS). Procedural success was achieved for 91.7% of the patients in group I and for 98.8% of the patients in group II. No acute stent thrombosis was observed in both groups. All the patients underwent clinical follow-up (duration: 20±10 months), and 61.2 % had an angiographic follow-up done at six to eight months. During the follow-up, there were four cardiac death, three MI, eighteen TVRs and one CABG in group I, and there were two deaths, four MI and nine TVRs in group II. The cardiac death (11.2 % vs 2.4 %, p=0.046) and TVR rate (44.4 % vs. 10.8 %, respectively; p=0.005) was lower in group II compared with group I. Late stent thrombosis developed for one patient in group II. **Conclusions** : The implantation of overlapping DESs in patients with diffuse coronary artery disease is relatively safe.