— F-137 —

Six Months Clinical Outcomes of Zotarolimus-Eluting Stent and Other Drug Eluting Stent After Percutaneous Coronary Intervention

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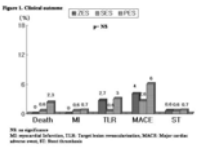
Background : According to the amazing outcomes after percutaenous coronary intervention (PCI) with drug eluting stents (DES), several types of DES were introduced. The clinical outcomes were similar between in sirolimus eluting stents (SES) and paclitaxel eluting stents (PES). The aim of this study is to verify the clinical efficacy and safety of zotarolimus elutung stents (ZES) and other DES (SES and PES) in PCI. **Method :** Three hundred sixty five patients (ZES 76 patients/95 lesions, SES 155/194, PES 134/172), who had coronary artery disease, were consecutively enrolled since August 2006 to January 2007. All patients were divided into three groups according to the types of stent (group 1: ZMS, group 2: SES, group 3: PES). Six-month clinical outcomes were analyzed. **Results :** Clinical follow up was available in 364 patients (99.4%). Baseline patient demographics were similar between ZES, SES and PES. Major adverse cardiac events for 6 months were 4.0 % in ZES group, 2.6 % in SES group, and 6.0 % in PES group (p>0.05) and stent thrombosis were 0.6 % in ZES group, 0.6 % in SES group and 0.7 % in PES group (p>0.05). Other data are in the following figure. **Conclusion :** During the mid-term clinical follow-up, there was no difference in outcomes after PCI with ZES compared to other DES. Long term clinical follow-up should be needed to know the priority.



— F-138 —

Correlation between serum bilirubin level and coronary microvascular integrity in diabetic patients

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Purpose : Bilirubin is a potent physiological antioxidants, it has been suggested that it may have a protective role in suppressing atherosclerosis and coronary artery disease. There has not been comparative studies for the relation of bilirubin level and coronary microvascular function in diabetes. This study investigates whether bilirubin can preserve coronary microvascular integrity in diabetes, by assessing the coronary flow velocities after successful percutaneous coronary intervention (PCI). **Methods :** Forty-seven lesions, in clinically indicative 39 patients (26 males and 13 females, mean age 59±10) who received elective PCI, were studied. Using an intracoronary Doppler wire, coronary flow velocity (CFR) and baseline diastolic deceleration time (bDDT) were measured after PCI. On admission, blood sample was acquired to evaluate the glucose level, glycated hemoglobin A1c (HbA1c) and total bilirubin without evidence of definitive liver disease. **Results :** The mean values were glucose level 254±92 mg/dL, HbA1c 8.1±1.5 %, total bilirubin 0.58±0.21 mg/dL, CFR 2.8±1.3 and bDDT 467±17 msec . Serum total bilirubin was significantly correlated with CFR (r=0.451, p=0.001) and bDDT (r=0.435, p=0.003), but glucose level and HbA1c, known as factors affecting coronary microvascular function, were not significantly correlated. In multivariate analysis, serum total bilirubin was the only variable with a significant correlation with the coronary microvascular dysfunction while age, glucose level and HbA1c had no significant correlation. **Conclusions :** These results suggest that serum bilirubin, via its antioxidant potential, protects from coronary microvascular dysfunction and could be as a useful and independent predictor of microvascular integrity in diabetic patients.