**BIODEGRABABLE POLYMER DRUG ELUTING STENT: EFFICACY AND SAFETY WITH SHORT REGIMEN OF ANTIPLATELET THERAPY**

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*Background*: Drug eluting stents (DES) significantly reduce restenosis and target lesion revascularization. But they have introduced a new concept: late thrombosis because of the persistence of polymer, which implicates the necessity of a prolonged dual antiplatelet therapy: problems of intolerance, bleeding, need to interrupt prior to interventions, higher cost. The PLGA degradates in 8 weeks releasing CO2 and H2O only, preclinical trials using stents with this biodegradable polymer (BDP) show complete stent endothelization in 90 days.

*Objectives*: We assessed the hypothesis that BDP sirolimus-coated stent (Alex, Balton Ltd) could offer safety and efficacy with a short pattern of dual antiplatelet therapy, 3 months, on a long-term follow-up.

*Methods and Results*: We studied 159 patients underwent a PCI with only Alex DES between January 2012 and December 2013. The mean age was 68.3±9.1 years. The diagnosis at admission was unstable angina 66.66%, myocardial infarction 18.23%, stable angina 11.32% and left ventricular dysfunction 3.77%. The treated vessels were left main 8.8%, anterior descending artery 40.88%, circumflex artery 23.89% and right coronary artery 26.41%. Average follow up was 30.6 months. The primary safety end point was a composite of stent thrombosis, myocardial infarction or cardiac death. The primary efficacy end point was clinically driven target-lesion revascularization. The primary safety end point had occurred in 7 patients (4.4%): stent thrombosis in 2 patients (1.25%), myocardial infarction in 5 patients (3.1%) and cardiac death in 2 patients (1.25%). The primary efficacy end point was required in 8 patients (5.0%).

*Conclusions*: Our clinical outcomes show that the use of a short regimen of dual antiplatelet therapy, after the treatment with BDP sirolimus-coated stent, offers safety and efficacy on a long-term follow-up. Stents with BDP of fast degradation might represent a solution to prevent late stent thrombosis and the complications of a prolonged dual antiplatelet therapy.