LONG TERM RESULTS OF PERCUTANEOUS CORONARY TREATMENT: DEDICATED STENT VS REGULAR DES TREATMENT


Background and objectives:
Percutaneous treatment of the left main coronary artery (LMCA) in many cases involves bifurcation stenting, which may be performed by means of one of the regular techniques completed with kissing stent insertion, or by means of a dedicated stent (DS). The DS Bioss is a DES platform with two different diameters, proximal and distal to the bifurcation, allowing to adapt to different vessel sizes in this context. We present our series of LMCA cases treated with DS Bioss versus a control group treated with standard DES, evaluating the long-term clinical results.

Methods:
An observational prospective study of patients with severe LMCA disease who underwent percutaneous treatment with DS Bioss or standard DES treatment in the period between January 2012 and August 2013. Evaluation of MACE was performed during the follow-up.

Results:
The study included a total of 33 patients with severe LMCA disease, 88% male, who underwent percutaneous treatment, among whom 18 underwent a standard DES treatment, while 15 were treated with DS Bioss. Patient characteristics: age 70.6±9.02 in the first group vs. 69.1±10.52 in the DS Bioss group (ns); diabetes 30.3% vs. 30.3% (ns); dyslipidemia 27.3% vs. 33.3% (ns); active smokers 12% in both groups; hypertension 77% vs. 60% (ns); renal insufficiency 6.1% vs. 12.6%; the indication for coronary catheterization was NSTEMI in 51.5% and stable angina in 36.3%. The average size of stents used was 3.15±0.29x18.44±4.8mm vs. 3.05±0.46x3.8±0.46x16.8±1.52 mm respectively.

During the follow-up, in the group treated with standard DES we recorded 3 cases of death, one case of myocardial infarction and one case of angina, while 72% of the patients presented no MACE during the average follow-up period of 16 months. In the group treated with DS Bioss, we recorded one case of myocardial infarction connected with restenosis in the LMCA stent and one case of angina with coronary catheterization demonstrating a good result for the previous LMCA stent, while 86% of the patients in this group presented no MACE during the follow-up period.

Conclusions:
Our series demonstrated good results in patients with severe LMCA disease, with better clinical evolution and lower MACE rate in the group treated with DS Bioss as compared to standard DES treatment.