Results The study shows that patients after MI had high levels of IL8 (1.54±0.6 vs 0.56±0.12, p<0.001) and TNFα (1.21±0.24 vs 0.77±0.14 p<0.001) contrasting with low levels of IL10(0.05±1.23 vs 0.12±0.10, p=0.06). Significant positive correlation between IL8 and TNFα with CRP was found (r=0.543, p=0.002 and r=0.458, p=0.034 respectively). The low level of IL10 was positively correlated with the ejection fraction of the left ventricle (LVEF), r=0.679,p=0.002 and negatively correlated with the diastolic diameter of left ventricle (LV) (r=-0.345, p=0.029) and the systolic volume of the LV (r=–0.377, p=0.022).One month after MI, a significant decrease of the level of TNFα (to 0.96) was observed the in the group of patients with a LVEF amelioration (34.7±5.6% vs 37.8±6%, p=0.017)and LVESV reduction (from76.9±15.8mL to 72.5±13.6mL, p=0.0017).

Conclusion As a result, an increase in TNFα and IL8 associated with decreased IL10 after MI with low LVEF. A correlation was found between TNFα level decreased one month after MI and the LV remodeling.

The author hereby declares no conflict of interest

0184

Genetic association between single nucleotide polymorphisms in the Paraoxonase 1 (PON1) gene and the risk of myocardial infarction in the Tunisian male population

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Background Coronary artery disease (CAD), the leading cause of death worldwide, is a multifactorial disease arising from the complex interplay of genetic and environmental factors. Paraoxonase 1 (PON1) polymorphisms have been implicated as risk factors for CAD, but the results of genetic association studies on the related phenotype of CAD are inconclusive. The aim of the present study was to investigate the association between the PON1 promoter –108 C>T (rs705381) and the coding region Gln192Arg (Q192R, rs662) and Leu55Met (L55M, rs854560) variants with myocardial infarction (MI) in a sample of the Tunisian population.

Methods A total of 382 unrelated MI patients and 380 healthy controls were enrolled in this study. Genotyping was performed by the polymerase chain reaction and restriction fragment length polymorphism method (PCR-RFLP). The frequencies of the alleles and genotypes between MI patients and controls were compared by the chi-square test.

Results Genotype distribution and allele frequencies of L55M were similar among the control and MI groups. The PON1-Q192R and –108 C>T genotypes exhibited significant differences in allele and genotype frequencies among the MI and control groups. At PON1-192 locus, there were significant differences between patients and controls (p<0.05), leading to significant odds ratios for RR genotype (OR=1.89, CI: 1.21 – 2.94) and R allele (OR=1.37, CI: 1.11 – 1.69). Binary logistic regression analysis also confirmed that RR genotypes have a higher risk of MI (OR=1.75, CI: 1.03 – 2.98). The T allele of –108C>T polymorphism was found to be a risk marker for MI (OR=1.29, CI: 1.05 – 1.58; p=0.011).

Conclusions The present study showed a significant and independent association between the PON1 Q192R and – 108 C>T polymorphisms and MI in the Tunisian male population.

The author hereby declares no conflict of interest

0371

Bifurcation techniques with ABSORB® bioresorbable vascular scaffold: optical frequency-domain imaging and micro-computed tomography assessment

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Aims We aimed to determine the correlation between optical frequency-domain imaging (OFDI) and micro-computed tomography (mCT) in the quantitative and qualitative assessment of ABSORB® bioresorbable vascular scaffold (BVS) in a bench test of multiple bifurcation technique.

Method BVS were deployed in bifurcation silicon phantoms divided into two benches. Bench A is a LAD-diagonal bifurcation with a 40° angle and bench B, a left main bifurcation with a 70° angle. Finet's law was respected. Different bifurcation techniques (provisional T stenting, kissing balloon, mini crush and culotte) were performed with a total of 16 procedures, 8 for each bench. All procedures were imaged by OFDI and mCT. BVS area, lumen area, number of struts, maximal stent thickness, disruption, lumen protrusion and deformation were the parameters collected. The analysis was performed in each segment, proximal, bifurcation and distal.

Results In bench A, we found no differences between OFDI and mCT for each proximal, bifurcation and distal segments concerning BVS area, lumen area, number of struts, maximal stent thickness, fractures, lumen protrusion, BVS deformation or BVS fragments. In the proximal segment, length was higher in mCT (13.2mm vs 10.4mm; p<0.0001) and there was more malapposition detected in mCT (75% vs 0%, p=0.007). In bench B, for the proximal segment, lumen area was higher (13.7mm^2 vs 13.mm^2, p=0.01) and we found more BVS malapposition in mCT (100% vs 0%, p =0.0002). All the other parameters were similar. In each bench, the apposition defect measured by mCT remained minimal.

Conclusion We demonstrated an excellent correlation between OFDI and mCT which is considered as the gold standard to evaluate stent in bench tests. In vitro techniques can now be validated in vivo using OFDI.

The author hereby declares no conflict of interest

0106

Association of lipoproteina and cholesteryl ester transfer protein-TaqIB polymorphism in Tunisian type 2 diabetes

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Lipoprotein (a) [Lp(a)] is a plasma lipoprotein consisting of a LDL-like particle with a molecule of apolipoprotein B100 covalently linked to a very large additional glycoprotein known as apolipoprotein(a). Elevated Lp(a) levels constitute an independent risk factor for cardiovascular disease in the general population. Several studies have examined the possibility that type 2 diabetes could influence Lp(a) concentrations. Cholesteryl ester transfer protein (CETP) plays a key role in lipoprotein metabolism, promoting the exchange of triglycerides (TGs) and cholesteryl esters (CEs) between lipoprotein particles. The CETP TaqIB polymorphism in type 2 diabetes may have an increased risk for coronary artery disease.

The aim of the present study was to examine the effect of the genetic polymorphism TaqIB of the CETP on the Lp(a) concentrations and the risk of coronaropathy in a cohort of type 2 diabetes.

Plasma Lp(a) levels are not significantly associated with CETP TaqIB polymorphism in type 2 diabetes: no significant difference in the plasma Lp (a) between the diabetics having the genotype B1B1 and those having the genotype B2 (365.8±259 vs. 317±250.1mg; p=0.20). For the diabetics with genotype B1B1, Lp (a) was correlated significantly with the LDL (n=90, r=0.32; p=0.002) and the apoB (n=90, r=0.24, p=0.01). The proportion of the diabetics having the allèle B2 and Lp (a) superior to 300mg/l, is clearly more important at those having coronaropathy (51.1 vs. 29.2%; odds ratio=2.53; p=0.03).

Lp(a) levels is a risk factor for cardiovascular disease in type 2 diabetic patients. This atherogenic risk seems to depend on the genetic polymorphism TaqIB of the CETP.

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