Table
Comparison of the RAD (mm), FAD (%) and NMD (%) values before and 6 months after the transradial coronary interventions

| | Before TRI | 6 months after TRI | p |
|---|---|---|---|
| RAD (mm) | 2,85 ± 0,44 | 2,74 ± 0,42 | * 0,0001 |
| FAD (%) | 9,45 ± 5,01 | 5,66 ± 5,87 | *0,0001 |
| NMD (%) | 9,52 ± 6,77 | 6,64 ± 6,51 | * 0,018 |

FAD, flow associated dilatation; NMD, nitroglycerin mediated dilatation; RAD, Radial artery luminal diameter; TRI, transradial intervention *Statistical significance

6.51 % vs 9.52 ± 6.77 %, p=0.018). Logistic regression analysis indicated that pre-procedural radial artery diameter to sheath size ratio (A/S ratio) was the independent predictor of NMD reduction (95% confidence interval, β = -9.74, p=0.024).

**Conclusions:** Decreased RAD and impaired vasodilatation response at the access site persist at late term after transradial catheterization. Pre-procedural radial artery A/S ratio is the only independent predictor of blunted vasodilatation response. Our observations suggest that using a previously intervened radial artery as a bypass graft may not be suitable since the impaired vasodilatation capacity and luminal diameter loss may influence the long term patency of the graft. However, use of smaller size sheaths may decrease functional impairment of radial artery following interventions.

## OP-92

**Bioresorbable Vascular Scaffold System for the Treatment of Coronary Chronic Total Occlusions: a Single Center Experience.** *Ahmet Taştan, Erdem Özel, Ali Öztürk, Emin Evren Özcan, Samet Uyar, Ömer Şenarslan, Talat Tavlı. Şifa University, Cardiology Department, İzmir, Turkey.*

**Objectives:** Bioresorbable vascular scaffold system (BVS) is the latest, fully absorbable vascular therapy system which is used to treat coronary artery disease. BVS has been used in different coronary lesion subsets like acute thrombotic lesions, bifurcation lesions, ostial lesions and lesions originated from bypass grafts. However data about the use of BVS in chronic total occlusions (CTO) is limited and reported as single cases in the literature. We aim to report our BVS experience for the treatment of CTOs in terms of procedural features and 6 months clinical follow up results.

**Methods:** 22 consecutive patients with CTO lesion who have referred to our clinic between January 2013 and May 2014 were analysed. Total number of 28 BVS had implanted. Patient characteristics, procedural features (target vessel, BVS diameter, BVS length, postdilatation rate, type of post dilatation balloon, procedure time, fluoroscopy time, contrast volume, post procedure reference vessel diameter (RVD), post procedure minimal lesion diameter (MLD), type of CTO technique and rate of microcathater use) and 6 months clinical follow up results( death, myocardial infarction, angina, coronary artery bypass graft (CABG), target lesion revascularisation (TLR) and target vessel revascularisation (TVR)) were analysed. Descriptive and frequency statistics was used for statistical analysis.

**Results:** Among patient group; mean age was 61,2 ± 8,3. 86,4 % of the patients was male and 40,9 % had diabetes.Prior myocardial infarction incidence was 72,7%. 50 % of the patients had percutaneous coronary intervention and 13 % had CABG before. Procedure performed from radial route at 18,1 % of the patients.Target vessel was RCA at 50% of the patients.Post-dilatation was performed on the implanted BVS at the percent of 92,9 % mainly by non-compliant balloon.85,7 % of the BVS was implanted by antegrade CTO technique.Mean procedure time was 83,2 ± 21,7 minutes. Mean contrast volume was 142 ± 31,9 ml.

At 6 months; there was no death.1 patient had lesion related myocardial infarction and need revascularisation becuse of early

Procedural features

| | n= 28 BVS |
|---|---|
| BVS diameter,mm | 2,8 ± 0,34 |
| BVS length,mm | 26,5 ± 3,5 |
| Post-dilatation rate | 26 (92,9 %) |
| Post-dilatation with NCB | 24 (85,7 %) |
| RVD-post procedure,mm | 2,7 ± 0,3 |
| MLD-post procedure,mm | 2,6 ± 0,32 |
| CTO technique | |
| Antegrade | 24(85,7 %) |
| Retrograde | 4(14,3 %) |
| Microcathater | 9 (32,1) |
| Procedure time,min | 83,2± 21,7 |
| Fluoro time, min | 19,2 ± 3,9 |
| Contrast volume,ml | 142 ± 31,9 |

cessation of dual anti-platelet therapy. 5 patients had angina and 1 of them need target vessel revascularisation.

**Conclusions:** BVS implantation appeared to be effective and safe in CTO lesions according to our results but randomised studies with higher number of patients with longer terms of follow-up needed.

## OP-93

**Ischemic Events after PCI in Stable Coronary Artery Disease According to Platelet Reactivity and Genetic Testing.** *Elena Z. Golukhova, Maria N. Ryabinina, Marina V. Grigoryan, Naida I. Bulaeva. Department of Noninvasive Cardiology, Bakoulev Scientific Center for Cardiovascular Surgery, Moscow, Russia.*

**Objective:** We aimed to evaluate the risk factors of ischemic events in patients with stable CAD in the preoperative and postoperative period during percutaneous coronary intervention according to laboratory data and CYP2C19 genetic polymorphism.

**Methods:** A total of 55 consecutive patients undergoing PCI were prospectively enrolled (age 59±9,68 yo). Mean follow-up period was 20 (± 7,85) months. All patients received a loading dose of clopidogrel 600 mg and aspirin 325 mg, before PCI, and maintaining doses (75 mg clopidogrel and 100 mg aspirin) there after. Assessment of platelet reactivity in the perioperative period was performed using light transmission aggregometry with 5 mmol/L ADP (LTA-ADP), VerifyNow and Thromboelastography with «PlateletMapping» kit. Evaluation of reactivity in the post-operative period was performed using the LTA-ADP. CYP2C19 genotyping was performed in all patients. Endpoints were: death from cardiovascular causes, acute myocardial infarction, angina recurrence, repeated endovascular intervention, stent thrombosis.

**Results:** In our study, we observed 11 ischemic events. The greatest predictive value for assessing the risk of coronary events were LTA-ADP value - 48% (p=0,027) and PRU - 213 (p=0,005) before PCI. Risk of stent thrombosis increases with increasing values of platelet reactivity to ADP data% (TEG) (p = 0,007) and PRU (p = 0,002). Increasing the value of platelet aggregation with 5 mmol / L ADP immediately after PCI had no effect on the development of "high cardiac events" (p = 0,78). Conclusive evidence of the impact of different types of CYP2C19 genotype on the number of "large cardiac events" were received (MP $\chi^2$ (12) = 12.83, p = 0.38).

**Conclusions:** 1. Risk of ischemic events increases with high platelet reactivity according to LTA-ADP and VerifyNow before PCI.

2. High on-treatment platelet reactivity after PCI does not affect on ischemic events and determination of platelet reactivity using LTA-ADP during 24 hours after PCI is not reasonable.

3. CYP2C19 genotyping alone as risk factor of adverse cardiac events after PCI is not reasonable.