derenervation, n=10); RD-3d+MI group (RD performed three days before MI, n=15); Metropol-3d+MI group (Metropol treated three days before MI, n=15); ACEI 3d+MI group (Perindopril treated three days before MI, n=15); and ARB-3d+MI group (Losartan treated three days before MI, n=15). Cardiac function, autonomic nervous system parameters (HRV), and neuroendocrine activities (plasma renin, angiotensin II, aldosterone and norepinephrine Levels) were evaluated 8 weeks post MI.

**Results:** Ten of 20 animals in the MI group, 5 of 15 in the RD-3d+MI group, 5 of 15 in the metropol-3d+MI group, 7 of 15 in the ACEI-3d+MI group and 8 of 15 in the ARB-3d+MI group died within the eight week period after coronary artery ligation. The survival rates in the RD-3d+MI group and the metropol group were the same and much less than the MI, ACEI, or ARB groups (P<0.05). The death rate did not differ between the latter three groups. None in the control and RD group died during the experiment. There were no significant differences in body weight or the infarct size among all experimental groups eight weeks post-MI. The results showed that the physiologic benefits of RD on improving cardiac remodeling and function, water and sodium excretion, autonomic modulation and suppression of RAAS activation were significantly better than any of the three drugs alone and had no effect on normal control.

**Conclusions:** In this post-MI HF animal model, surgical RD provides effective autonomic modulation, inhibition of the RAAS, improved cardiac remodeling, and preserved renal function, without affecting normal circulation and cardiopulmonary function in normal rats. Compared to metropol, ACEI and ARB single drug therapies, RD alone is more efficacious. These results suggest that RD may be an effective treatment option for HF, especially in patients who have contraindications to drug therapy.

**GW25-e0746**

**Technique of synchronous culture of endothelial progenitor cells and Smooth muscle cell derived rabbit bone narrow**

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**Objectives:** To isolate rabbit bone marrow-derived mononuclear cell then synchronous culture rabbit endothelial progenitor cells (EPCs) and smooth muscle progenitor cells (SPCs), study their biological properties and assess the possibility as the seed cells for tissue-engineered venous valves.

**Methods:** Density gradient centrifugation was used to obtain bone marrow blood mononuclear cells, which were separately cultured with EGM-2 complete medium containing 5% FBS to be induced to EPC and with EBM-2 medium without VEGF containing 5% FBS, 20ng/ml PDGF-BB for SPC induction.

**Results:** EPCs were cultured for 10 days and the cells fused as monolayer, showing a “stepping stone” appearance and expressing VEGFR-2, VWF and weakly expressing CD34. Under the transmission electron microscope, W-P bodies could be seen within the EPC cytoplasm. Biological functions showed visible EPC grew on the matrigel in a blood-well-like form. SPCs was cultured for 14 days and showed specific features of the vascular smooth muscle growth, namely, “peak-valley” growth way. SPCs expressed CD34 and SMA without VWF and VEGF-2 expression myofilaments, parallelized with the longitudinal axis, could be seen under the electron microscope. SPCs could not form vessel-like structures on the Matrigel.

**Conclusions:** Mononuclear cells could be obtained through density gradient centrifugation of the bone marrow blood, which could be synchronous cultured to EPCs and SPCs. They were high purity, provided seed cells for Venous valve tissue engineering economical and simply.

**GW25-e0838**

**eNOS modified endothelial progenitor cells inhibit efficiently neointima formation and enhancement of vascular function**

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**Objectives:** Loss of endothelial NO production after arterial injury may contribute to restenosis, characterized by neointima formation and enhanced of vascular function. Previous studies have established that bone marrow-derived endothelial progenitor cells (EPCs) play an important role in vascular repair. In this study, we investigated that hypothesis that overexpression of eNOS (GW-25-e0843) in EPCs can restore NO production and inhibit neointimal hyperplasia.

**Methods:** EPCs were obtained from rat bone marrow were isolated and cultured. 3+ (4,5-dimethylthiazol-2-yl)- (2,5-diphenyltetrazolium bromide) -2,5-diphenyltetrazolium bromide (MTT) assay were used to evaluate the proliferation of EPCs. The morphology of EPCs cytoplasm. Biological functions showed visible EPC grew on the matrigel in a blood-well-like form. SPCs was cultured for 14 days and showed specific features of the vascular smooth muscle growth, namely, “peak-valley” growth way. SPCs expressed CD34 and SMA without VWF and VEGF-2 expression myofilaments, parallelized with the longitudinal axis, could be seen under the electron microscope. SPCs could not form vessel-like structures on the Matrigel.

**Conclusions:** Mononuclear cells could be obtained through density gradient centrifugation of the bone marrow blood, which could be synchronous cultured to EPCs and SPCs. They were high purity, provided seed cells for Venous valve tissue engineering economical and simply.

**GW25-e0845**

**Baseline serum uric acid level as a predictor of cardiovascular disease related mortality and all-cause mortality: A meta-analysis of prospective studies**

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**Objectives:** Serum uric acid (SUA) levels have been used to predict cardiovascular and all-cause mortality event, but the data have yielded conflicting results. We investigated whether SUA was an independent predictor for cardiovascular or all-cause mortality with prospective studies by meta-analysis. Serum uric acid (SUA) levels have been used to predict cardiovascular and all-cause mortality event, but the data have yielded conflicting results. We investigated whether SUA was an independent predictor for cardiovascular or all-cause mortality with prospective studies by meta-analysis.

**Methods:** PubMed and Embase were searched without language restrictions for publications available till April 2013. Only prospective studies on cardiovascular or all-cause mortality related outcomes were included. Pooled adjusted relative risk (RR) and corresponding 95% CI were calculated separately for the highest vs. lowest category or the lowest vs. middle category.

**Results:** For the highest SUA, eleven studies with 172,123 participants were identified and analyzed. Elevated SUA increased risk of all-cause mortality (RR 1.23; 95% CI 1.09-1.42) and cardiovascular mortality (RR 1.37; 95% CI 1.07-1.72). Subgroup analyses showed that elevated SUA significantly increase the risk of all-cause mortality among men (RR 1.23; 95% CI 1.08-1.42), but not in women (RR 1.05; 95% CI 0.97-1.10).

**Conclusions:** Baseline SUA level is an independent predictor for future cardiovascular or all-cause mortality with prospective studies by meta-analysis.