Methods 32 patients with SSS or AVB associated chronic heart dysfunction were divided two groups RA-URIS pacing group (13 cases) and RA-RVA pacing group (19 cases). The parameters including left ventricular mass index (LVMI), left ventricular ejection fraction (LVEF) and 6 min walk test (6-MWT) were compared between two groups in pre-pacing and in follow up 24 months after pacing.

Results There were no difference on LVEF, LVMI and 6-MWT between two groups before pacemaker implanted. But after 24 months for pacing therapy in RA-URIS group, there was significant increase in LVEF (48.3 ± 10.1 vs 40.7 ± 8.4 , $p < 0.05$), 6MWT (386 ± 69 vs 330 ± 78 , $p < 0.05$) and decrease in LVMI (102.5 ± 16.3 vs 120.1 ± 18.5 , $p < 0.05$). Meanwhile, LVEF, 6-MWT (48.3 ± 10.1 vs 43.7 ± 5.5 , 386 ± 69 vs 329 ± 91 , $p < 0.05$) were increased and LVMI (102.5 ± 16.3 vs 113.6 ± 17.4 , $p < 0.05$) were decreased significantly in RA-URIS group compared with those of RA-RVA group in 24 months follow up.

Conclusion The results showed that RA-URIS pacing may reverse left ventricular remodelling in patients with chronic heart dysfunction as well as improving life quality.

e0650 THE EFFECTS OF BIVENTRICULAR SYNCHRONOUS PACING ON CBF, MVO₂ AND CWE IN DOGS

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Objective To compare the effects of biventricular synchronous pacing with different pacing site on coronary Blood flow (CBF), myocardial oxygen consumption (MVO₂) and cardiac work efficiency (CWE).

Methods RA-cHisB and RA-RVA sequential pacing, RVA-LVPL and cHisB-LVPL pacing, RA-RVA-LVPL and RA-cHisB-LVPL pacing were randomly performed in 14 dogs with general-anaesthetised, opened chest and artificial-ventilation. SNR was as self-control. Every pacing mode was to capture SNR for 20 min with a recovery of physiologic parameters for 10 min, and then shift another pacing mode in turn. CBF and CO were measured by a electromagnetic flowmeter. Blood sample were respectively collected from the catheters in left ventricle and coronary sinus for getting the arterial O₂ saturation (SaO₂), coronary sinus O₂ saturation (ScsO₂) and Hgb.

Results No significant difference in CBF among the RA-cHisB-LVPL, RA-RVA-LVPL and RA-cHisB pacing were found. CBF in RA-RVA pacing was decreased than that in RA-cHisB-LVPL, RA-RVA-LVPL and RA-cHisB pacing. MVO₂ among the all groups had no significant changes compared with each other. CO of RA-cHisB, RVA-LVPL and cHisB-LVPL pacing were increased as compared with that in RA-RVA pacing ($p < 0.01$). CO in cHisB-LVPL pacing was increased by 6.7% than that in RVA-LVPL pacing. CO in RA-cHisB pacing was increased by 8.7% than that in RA-RVA pacing. CO in RA-RVA-LVPL pacing was increased as compared with that in RA-cHisB and cHisB-LVPL pacing, respectively. CO in RA-cHisB-LVPL pacing was increased than that in RA-RVA-LVPL pacing. The changes of CWE were similar to that of CO among all pacing groups. CWE in RA-cHisB-LVPL pacing was significantly enhanced as compared with that in RA-cHisB and RA-RVA-LVPL pacing. Conclusions RA-cHisB dual chamber, cHisB-LVPL biventricular and RA-cHisB-LVPV triple-chamber pacing might significantly increase CBF and CWE without the increment of MVO₂.

Conclusion The biventricular synchronous pacing have the beneficial effects on maintaining the balance between myocardial oxygen supply and consumption and increasing CWE by enhancing the cardiac ejection performance.

e0651 EVALUATION ON ACUTE HAEMODYNAMIC EFFECTS OF INTRAVENOUS rhBNP IN ACUTE MYOCARDIAL INFARCTION PATIENTS WITH HEART FAILURE BY CONTINUOUS SWAN-GANZ CATHETER MONITORING

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Objectives To compared and evaluated the acute haemodynamic effects and safety of intravenous rhBNP versus nitroglycerin (NIT) in AMI patients with ADHF by Swan-Ganz catheter (6F, ARROW, Inc USA) monitoring through a prospectively designed study.

Methods 42 consecutive AMI patients with ADHF were randomised into rhBNP group ($n=21$, $1.5 \mu\text{g} \cdot \text{kg}^{-1}$ bolus intravenous injection followed by $0.0075 \mu\text{g} \cdot \text{kg}^{-1} \cdot \text{min}^{-1}$ for the first 3 h and $0.015-0.03 \mu\text{g} \cdot \text{kg}^{-1} \cdot \text{min}^{-1}$ infusion for following 21 h) and NIT group ($n=21$, 10 to $100 \mu\text{g} \cdot \text{min}^{-1}$ intravenous infusion for 24 h). The invasive haemodynamic parameters were measured at the baseline, during 24 h of drug infusion and 6 h of post-infusion by Swan-Ganz catheter monitoring via subclavian access while total urine output during 30 h and relative serum chemistries were measured. MACE was followed up 1 week.

Results As early as 30 min after the initiation of rhBNP, PCWP was reduced by 48.9% contrasted to baseline and cardiac index (CI) was increased by 27.1% at 1 h of rhBNP infusion respectively, ($p < 0.05$); these significant changes in PCWP and CI continued throughout 24 h of rhBNP infusion and 6 h of discontinuing the infusion ($p < 0.05$). Although PCWP reduced significantly at 2 h of NIT infusion ($p < 0.05$) and CI elevated significantly at 3 h of infusion. The total urine output for 30 h of this study in rhBNP group tended to be more than that in NIT group ($p > 0.05$), while serum potassium concentration in rhBNP group was significantly increased relative to baseline value (3.4 ± 0.5 vs $4.0 \pm 0.4 \text{ mmol} \cdot \text{L}^{-1}$, $p < 0.05$). There was no symptomatic hypotension or other adverse events appeared to be associated with rhBNP administration under this study.

Conclusions Intravenous injection of rhBNP results in more rapid, strong and prolong haemodynamic improvement than that of NIT in AMI patients with ADHF as well it is also feasible and safe in clinic as a selective agent for AMI patients with ADHF.

e0652 THE LEVEL CHANGES OF IL-8 AND THE RELATIONSHIP TO THE LEFT VENTRICULAR ANEURYSM FORMATION AND CARDIAC PERFORMANCE IN PATIENTS WITH ACUTE MYOCARDIAL INFARCTION

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Objective To investigate the changes in interleukin-8 (IL-8) and the relationship with the left ventricular aneurysm (LVA) and cardiac function in acute myocardial infarction (AMI) patients using left ventriculography (LVG).

Methods A total of 106 patients with primary anterior AMI accompanied LVA diagnosed by LVG were submitted to LVG after onset of AMI symptom and divided into LVA group and non-LVA group. Plasma IL-8 was measured. At the immediately after PCI and 6th month after AMI, the parameters of left ventricular end diastolic volume index (LVEDVI), left ventricular end systolic volume index (LVESVI), left ventricular ejection fraction (LVEF), wall motion score (WMS) and left ventricular end diastolic pressure (LVEDP) were measured by LVG. The main adverse cardiac events were recorded in 24th week after PCI.