

Conclusions QT/RR slope of DCM sudden death group was higher than DCM non sudden death and Con group significantly. QT/RR slope show high predicting value for sudden death in DCM patients independently or combined with NSVT or LVEF.

e0336 EFFECT OF TAURINE ON VASCULAR SMOOTH MUSCLE CELLS APOPTOSIS IN ATHEROSCLEROTIC RABBITS

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Objective To study the effect of taurine on the apoptosis of vascular smooth muscle cells in atherosclerotic model of rabbits and the mechanism of anti-atherosclerosis.

Methods 21 male Japanese white rabbits were divided into three groups: normal control group, high cholesterol group and taurine group. The normal control group were fed with standard chow diet and two other groups with a high fat diet. The taurine group were fed with taurine solution once a day, two other groups were given normal saline gastric feeding. Twelve weeks later the modelling was determined successful, all rabbits were killed with air embolism method and exposed the heart, isolated and cut aorta from aortic valve to the bifurcation of abdominal aorta blood vessel. Observing the pathomorphological changes in aorta wall and ultra-structures of VSMCs were observed by electronic microscopy, the apoptotic rate of VSMCs detected by flow cytometry, expression of bcl-2 and bax proteins were detected by immunohistochemistry and expression of caspase-3 proteins were detected by Western blot.

Results The aortic intima of normal control group was smooth, no plaque formation; the high cholesterol group was uneven and rough, there were many needle-like white mastoid processes, some fused into pieces; the above-mentioned diseases of the taurine group were less. Three-tier structure of the normal control group were observed clearly through light microscope (HE × 400), vessel wall was smooth and VSMCs arranged regularly; the intima of the high cholesterol group was thicker significantly and irregular foam cells were aggregation, a large number of lipid could be seen at elastic plates and cell gap, smooth muscle cells arranged irregularly; three-tier structure of the vessel wall in the taurine group could be seen clearly, the intima is thick partly, foam cells were less, lipid is deposition rarely, smooth muscle cells are still arranged neatly, the intima and intima-to-media were significantly decrease ($p < 0.01$). In high cholesterol group the apoptotic rate of VSMCs was higher than that in normal control group ($p < 0.01$), the expression of bcl-2 proteins was lower ($p < 0.01$), but the expression of bax and caspase-3 proteins was higher ($p < 0.01$). The visible atheromatous plaque which caused the serious stenosis was observed and the apoptotic VSMCs were more in the atheromatous plaque in high cholesterol group. In taurine group the apoptotic rate of VSMCs was lower than that in high cholesterol group ($p < 0.01$), the expression of bcl-2 proteins was higher ($p < 0.01$), but the expression of bax and caspase-3 proteins were lower ($p < 0.01$). The atheromatous plaque were decreased and the stenosis were reduced, and the apoptotic VSMCs were less and not typical.

Conclusions Taurine can prevent the formation of atherosclerosis and inhibit the apoptosis of VSMCs in the atherosclerotic plaque by regulating the bcl-2, bax and caspase-3 proteins.

e0337 MALLEOLUS ARM INDEX CLINICAL PRACTICE ANALYSIS

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Objective To evaluate ABI abnormalities and associated risk factors, we measured ankle brachial index (ABI) of cardiovascular-event

high-risk patients. The first step enquires the cardiovascular-event high-risk to win high limit of the ABI abnormality.

Methods We measured the ABI of 773 cases of hospitalised cardiovascular-event high-risk patients. $ABI < 0.9$ and $ABI > 1.3$ are defined as abnormal. Collected data and process statistics analysis to investigate the independent risk factors of ABI.

Results The incidence of abnormal ABI is 54%. Among them $ABI < 0.9$ have 12.4%, Independent risk factors to predict ABI abnormalities are: sex, age, diabetes, creatinine abnormalities, mellitus, hypertension, high cholesterol, high smoking. In cardiovascular-event high-risk $ABI < 0.9$ and $ABI > 1.3$ all show obvious difference. The ABI no show obvious difference in difference clan.

Conclusions In patients with cardiovascular-event high-risk $ABI < 0.9$ and $ABI > 1.3$ are abnormal. ABI abnormalities are particularly prevalent in the old, smokers and patients with hypertension, diabetes or dyslipidemia. The difference of ABI between each clan did not show statistics to learn the difference.

e0338 ABLATION OF LEFT-VARIATED DUAL ATRIOVENTRICULAR NODAL PATHWAY IN CORONARY SINUS

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Atrioventricular nodal reentrant tachycardia (AVNRT) is the most common paroxysmal supraventricular tachycardia. It is well accepted that the mechanism of AVNRT is reentry associated with dual or multiple atrioventricular nodal (AVN) pathway. Typical AVNRT pathways including fast and slow pathways are confined in right atrium. Radiofrequency catheter ablation slow pathway, occasionally fast pathway, has become the definitive treatment of choice for most symptomatic patients. Besides typical AVNRT, there exists some atypical AVNRT with various manifestations. Several groups have reported successful ablation of leftward dual AVN pathway in the left side of the heart. We present one case of left-variased AVN as well as dual AVN pathway. Routine ablation methods failed to eliminate the tachycardia. Detailed electrical physiological study showed that His Bundle potential was minimal recorded in the right atrium septum but was prominent when recorded in the left septum using a catheter via transaortic approach. Left variated dual AVN pathway was considered. Since routine methods were unsuccessful, an ablation was forward deep into coronary sinus when a target with $A/V \approx 1/4$ and without His bundle electrogram was mapped. A small energy attempt showed effective and the tachycardia was successfully eliminated by ablation of slow pathway deep in the coronary sinus.

e0339 ANTERIOR SPINAL ARTERY SYNDROME DUE TO CARDIAC TAMPONADE AFTER PERCUTANEOUS CORONARY INTERVENTION-A CASE REPORT

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Objective Delayed cardiac tamponade is an uncommon complication of percutaneous coronary intervention (PCI). Anterior spinal artery syndrome (ASAS) induced by cardiac arrest due to cardiac tamponade is rare. We report such a case and discussed the causes and prevention measures.

Case report This is a 78 year-old man admitted for exertion angina for 3 months. He had implanted with a VVI cardiac pacemaker 3 months

ago for sick sinus syndrome in other hospital. On physical exam: His Blood pressure was 150/80 mm Hg and heart rate 55 bpm. His lungs were clear on auscultation. Neurological exam was normal. The coronary angiography showed 75% stenosis in mid segment of right coronary artery (RCA), 50% in mid segment of anterior descending artery, 60% from ostium to proximal segment and subtotal occlusion of distal part of circumflex artery. A 3.0*24 mm drug-eluting stent was implanted in RCA and a 2.5*29 mm in circumflex artery after pre-dilation. 6 h later the patient complained pain in xiphoid process, back and neck. The monitor displayed blood pressure 69/57 mm Hg and heart rate 54 bpm. Dopamine was administered with simultaneous transfusion of 250 ml saline and the blood pressure returned to and maintained at 100/60 mm Hg within 30 min. 4 h later, cardiac arrest occurred and the patient lost consciousness. Cardiopulmonary resuscitation was performed immediately and bedside echocardiography found cardiac tamponade. Pericardiocentesis was performed and 200 ml bloody fluid was withdrawn. Heart beat recovered and blood pressure returned to normal level. 10 h later, the patient woke up and was talkative, but could not move legs. He also had bladder and rectal incontinence. Neurological evaluation was as follows: cranial nerves without changes, absence of pain from umbilicus down, preserved deep sensitivity, deep tendon reflexes abolished and muscle tone decreased in legs. Computer tomography showed lacunar infarction of brain and degeneration of thoracic spinal column 5–9. Cerebrospinal fluid was clear with total proteins 230.6 mg/dl, WBC $7.0 \times 10^6/l$ and IgG 580.0 mg/l. Anterior spinal artery syndrome was diagnosed and steroid, anti-platelet and anti-coagulation agents, vitamin B and butylphthalide were used. Rehabilitation therapy was introduced one month later. 3 months later, he regained urinary and fecal continence and could stand with a walker. The patient discharged half year later.

Conclusion In older patients with diffuse arteriosclerosis, delayed cardiac tamponade may occur after PCI and induce persistent hypotension, even cardiac tamponade, and result in ASAS. Therefore, close observation and immediate management are very important.

e0340 ACTIONS OF IRBESARTAN ON ATPASE ACTIVITY AND ANGIOTENSIN II IN BLOOD VESSELS FROM RENAL HYPERTENSIVE RATS

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Objective To explore the effects of irbesartan on activities of Na^+ - K^+ -ATPase, Ca^{2+} -ATPase, Angiotensin II (AngII) and vascular remodelling in renal hypertensive rats (RHRs).

Methods Renovascular hypertension was induced by two kidney-one clip method. Eighteen RHRs were randomly divided into 3 groups: RHR model group (n=6), irbesartan treated group [50 mg/(kg d), n=6], withdrawal group (n=6). Six rats were included in sham operation group. Blood pressure was measured before and after using irbesartan. Thicknesses of vascular wall (TVW) of thoracic aorta and mesenteric artery were measured after 8 weeks. ATPase activities were determined by enzymatic colorimetric method. AngII level was detected by radioimmunoassay.

Results Compared to the sham operation group, blood pressure, TVW, AngII levels of plasma and blood vessels were increased in RHR. The activities of Na^+ - K^+ -ATPase and Ca^{2+} -ATPase were decreased in RHR. Blood pressure and the TVW of mesenteric artery were significantly decreased by irbesartan treatment. An increased AngII level and activity of Ca^{2+} -ATPase in thoracic aorta and

mesenteric artery were also found [thoracic aorta: (11.9 ± 1.9) vs (7.5 ± 1.6) $\mu\text{mol Pi}/(\text{h} \cdot \text{mg pro})$; mesenteric artery: (11.6 ± 1.9) vs (8.2 ± 0.8) $\mu\text{mol Pi}/(\text{h} \cdot \text{mg pro})$, both $p < 0.01$]. No change of Na^+ - K^+ -ATPase activity was found after irbesartan treatment. After one-week discontinuation of treatment, blood pressure was significantly elevated, the activity of Ca^{2+} -ATPase of thoracic aorta [(7.6 ± 1.4) $\mu\text{mol Pi}/(\text{h} \cdot \text{mg pro})$] and mesenteric artery [(6.9 ± 1.3) $\mu\text{mol Pi}/(\text{h} \cdot \text{mg pro})$] was decreased (both $p < 0.01$). There was a significant negative correlation between AngII and the activity of Ca^{2+} -ATPase in RHR.

Conclusions The vascular remodelling of RHR may be associated with decreased vascular ATPases activities. Irbesartan can reverse vascular remodelling partially by increasing Ca^{2+} -ATPase activity.

e0341 EFFECT OF FASTING GLUCOSE LEVELS ON MORTALITY RATE IN PATIENTS WITH DIABETES MELLITUS AND CORONARY ARTERY DISEASE UNDERGOING REVASCUARIZATION

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Objectives We examined the association between glycaemic control determined by fasting glucose levels before elective PCI and the outcomes in diabetic patients undergoing elective revascularization.

Background Patients with diabetes mellitus (DM) have a worse clinical outcome after PCI than patients without DM, but whether optimal glycaemic control before PCI could improve the prognosis is not clear.

Methods The DESIRE-2 (Drug-Eluting Stent Impact on Revascularization-2) was a single-center registry of coronary revascularization in our institution between July 1st 2003 and Sep 30th 2005. A total of 434 diabetic patients undergoing elective PCI were enrolled in this study. Optimal glycaemic control was defined as fasting glucose < 126 mg/dl, and suboptimal control was defined as fasting glucose ≥ 126 mg/dl. Median follow-up duration after the index intervention was 523 days.

Results The average patient age was 61.0 ± 9.8 years; 69.8% of the patients were men. The patients with optimal glycaemic control were older than the suboptimal control group (62.1 ± 9.46 vs 59.6 ± 10.41). Compared with diabetic patients with optimal glycaemic control, those with suboptimal glycaemic control had similar rates of total mortality (3.3% vs 3.9%, $p = 0.762$) and major adverse cardiac and cerebral events (15.9% vs 12.4%, $p = 0.308$). In a multiple Cox regression analysis, total cholesterol level (HR 1.009, 95% CI 1.002 to 1.016, $p = 0.013$) and number of lesion (HR 2.070, 95% CI 1.340 to 3.199, $p = 0.001$) were significant independent predictors of MACCE.

Conclusions In diabetic patients undergoing elective PCI, optimal glycaemic control did not improve clinical prognosis. These data suggest that aggressive treatment of DM to achieve fasting glucose < 126 mg/dl before PCI is not necessary.

e0342 EFFECT OF ACARBOSE ON MYOCARDIAL PERFUSION IN PATIENTS WITH CORONARY HEART DISEASE AND IMPAIRED GLUCOSE TOLERANCE AFTER PCI: A CLINICAL TRIAL

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Objective To study the effect of Acarbose on myocardial perfusion in revascularized patients with coronary heart disease and impaired glucose tolerance after percutaneous coronary intervention (PCI)