

Methods 64 CHF patients were randomised equally into two groups. All were treated with the basic conventional treatment. Additionally, 1.2 g of QC was given three times a day to the therapy group, while no additional treatment was given to the control group. During the treatment, body weight, urine output, sweat secretion and 6 min walking distance were observed in the two groups. The dosage of cedilanid and furosemide for the first week and second week in the two groups was analysed. The levels of serum Na^+ in two groups were respectively measured on the second, eighth and fifteenth hospital day. During the treatment, the side-effect and compliance were observed.

Results 1 and 2 weeks after treatment, the number of sweat secretion was less in two groups, but the decrement was more significant in the therapy group than in the control group ($p < 0.05$). One weeks later, the urine output was more than that before ($p < 0.05$), body weight became less ($p < 0.05$), and 6 min walking distance was better than before, but there are all no significant differences between two groups ($p > 0.05$). 2 weeks later, in both groups, the urine output was more than that before; body weight became less; 6 min walking distance was better than before. All these differences are significant differences statistically ($p < 0.05$). And there are significant differences about urine output and 6 min walking distance between two groups statistically ($p < 0.05$); about body weight between two groups there is no significant difference ($p > 0.05$). There are no significant differences about the dosage of lanatoside C and furosemide in the first and second week between two groups statistically ($p > 0.05$). The level of serum Na^+ on the eighth hospital day was less than before in both groups ($p < 0.05$), but there are no significant differences between two groups statistically ($p > 0.05$); on the fifteenth day, there is almost no change about that of the therapy group compared with that on the eighth day ($p > 0.05$); on the contrary, there is a significant difference in the control group statistically ($p < 0.05$); and there is a significant difference between two groups statistically ($p < 0.05$). During the period of using the capsule, the 33 patients have not any uncomfortable complain about this drug and nobody stop using this capsule.

Conclusion The effect of QC about releasing hyperidrosis in a short time is conspicuous. It can play the role in a short time. There is no obvious effect on body weight. The short-term effects of QC about improving urine output and 6 min walking distance are not significant, but it plays this role during the second week gradually. QC can't reduce the dosage of cedilanid and furosemide. QC has the effect of keeping the level of serum Na^+ to some extent. During the observation, the tolerance of this capsule is good, and there is no side effect observed.

e0334 INVESTIGATION FOR EFFECTS OF SOTALOL COMBINED WITH PROPAFENONE TO TREAT PAEDIATRIC ATRIAL TACHYCARDIA

doi:10.1136/hrt.2010.208967.334

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Objects To evaluate the efficacy, safety, selection and combination program of anti-arrhythmic drugs to treat paediatric atrial tachycardia.

Methods 42 children (male 19, female 23, age 7 days–14 years) diagnosed of atrial tachycardia were treated by oral anti-arrhythmic drugs. 24 h holter monitoring and wireless remote realtime monitoring system were used to evaluate the efficacy. Cardiac function was evaluated by echocardiogram. Side effects of drugs were closely detected during the whole process.

Results 21 cases were firstly treated by single sotalol, none were completely cured, 20 were partially cured (95.2%), 1 was ineffective

(4.8%). 41 cases were finally treated by sotalol plus propafenone, 30 were completely cured (73.2%), 9 were partially cured (21.9%) and 2 were ineffective (4.9%). The effective dose of sotalol was 5.4–5.7 mg/kg.d, and the effective dose of propafenone was 9–10.5 mg/kg.d. 5 cases of incessant atrial tachycardia complicated by tachycardiomyopathy (5/17, 29.4%) were treated by amiodarone plus metoprolol, 1 was completely cured and the others' cardiac function were obviously improved after treatment although none of them were completely cured, they all reverted to sotalol plus propafenone while cardiac function became nearly normal. Injury of thyroid function happened in 3 cases after taking oral amiodarone for 3–8 months and all recovered during 1 month after withdrawing the drug. During the 1–14 months of follow up for the 31 cases completely cured, only 1 case of intermittent atrial tachycardia recurred at No.8 month after withdrawing the drug.

Conclusion 1. Sotalol is a safe and effective anti-arrhythmic drug which can be used to treat paediatric atrial tachycardia, effective dose is 4.89–5.71 mg/kg.d; 2. Combination use of sotalol plus propafenone is obviously more effective than single use of sotalol with satisfactory safety; 3. Combination use of sotalol plus propafenone is safer and more effective than combination use of amiodarone plus metoprolol. 4. Amiodarone might lead to thyroid function injury, and can be used as transitional drug for patients diagnosed of tachycardiomyopathy.

e0335 ROLE OF QT INTERVAL DYNAMICITY IN PREDICTING SUDDEN DEATH IN PATIENTS WITH IDIOPATHIC DILATED CARDIOMYOPATHY

doi:10.1136/hrt.2010.208967.335

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Objective To investigate the role of QT interval dynamicity in predicting sudden death in patients with idiopathic dilated cardiomyopathy (DCM).

Methods 55 patients with DCM (DCM group) and 27 health people (Control group, Con) were enrolled according to certain criteria. Investigations included history collection, clinical examination, echocardiography, ECG and 24 h ambulatory ECG. Following indexes were determined, left ventricle end diastolic dimension (LVEDD), left ventricle ejection fraction (LVEF), QT dispersion (QTd), SDNN, the slope of QT/RR plots of the linear regression, ventricular premature beats (VPB) and non-sustained ventricular tachycardia (NSVT). Patients with DCM were followed-up until all cause death.

Results Comparing with Con group, the LVEDD, QTd, VPB/24 h, NSVT/24 h, QTe/RR slope and QTp/RR slope were higher in DCM group, while LVEF and SDNN were lower in DCM group ($p < 0.05$). The LVEDD, LVEF, QTd, SDNN, QTe/RR slope and QTp/RR slope were significant different among DCM sudden death group, DCM non sudden death group and Con group ($p < 0.05$). Comparing between DCM sudden death and non sudden death group, LVEF, SDNN, QTp/RR slope and QTp/RR slope shown significant difference ($p < 0.05$). Comparing between DCM with NSVT and without NSVT group, LVEF, QTd, VPB/24 h, QTp/RR slope and QTp/RR slope shown significant difference ($p < 0.05$). The sudden death rate of DCM patients with QTe/RR slope ≥ 0.210 was higher than those < 0.210 (54.5% vs 21.1%, $p < 0.05$). Sudden death rate of QTp/RR slope ≥ 0.190 was higher than those < 0.190 (52.2% vs 21.9%, $p < 0.05$). The sudden death rate of DCM patients with both LVEF 35% and NSVT+ was 62.5%. Combining QTe/RR ≥ 0.210 with NSVT+ or LVEF 35%, the sudden death rates were 62.5% or 66.7%. Combining QTp/RR ≥ 0.190 with NSVT+ or LVEF 35%, the sudden death rates were 66.7% or 61.5%. Combining QTe/RR ≥ 0.210 or QTp/RR ≥ 0.190 with NVST+ and LVEF 35%, the sudden death rates were 77.8% or 70.0%.

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

doi:10.1136/hrt.2010.208967.336

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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 \times 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 were 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

doi:10.1136/hrt.2010.208967.337

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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

doi:10.1136/hrt.2010.208967.338

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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 ablating 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

doi:10.1136/hrt.2010.208967.339

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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