

right lateral wall was achieved in all patients. All tachycardias, including scar-related AT and typical AFL were ablated successfully. There was no complication during procedure. No recurrences of AT was observed during follow-up.

Conclusion Under conventional electrophysiological mapping, linear ablations from scar area to anatomic barrier and/or isolation of scar area from right lateral wall, could be successfully abolish IARTs and all potential circuits with reentry around or related to the scar.

e0714 **AUTONOMIC NERVE REMODELLING OF PROLONGED RAPID ATRIAL PACING-INDUCED ATRIAL FIBRILLATION AND REVERSAL EFFECT OF PROPRANOLOL**

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Background Limited study disclosed atrial heterogeneous sympathetic innervation in atrial fibrillation recently. But the changes of vagal nerve and the effect of medicine on neural remodelling are not clear.

Methods and Results Twelve dogs underwent atrial pacing at 600 bpm. Six of them were given propranolol (1 mg/kg tid po, propranolol group), while the other six took placebo only. (AF group) All paced dogs developed sustained AF by 5 weeks of pacing. Tissues from six healthy dogs were used as controls. Immunohistochemistry staining of cardiac nerves was performed using anti-tyrosine hydroxylase (TH) and anti-acetylcholine (ACh) antibodies. In AF group, the density of TH-positive in the right atrium (RA), atrial septum (AS) and left atrium (LA) was $2156.66 \pm 677.57 \mu\text{m}^2$ per mm^2 , 3679.92 ± 1951.41 and $18961.8 \pm 10274.15 \mu\text{m}^2$ per mm^2 respectively, which was significantly ($p < 0.01$) higher than the nerve density in control tissues (608.8 ± 414.60 , 660.62 ± 273.29 and $792.46 \pm 326.33 \mu\text{m}^2$ per mm^2 , respectively). In propranolol group, the density of TH-positive nerve in RA, AS, LA was $879.96 \pm 755.13 \mu\text{m}^2$ per mm^2 , 960.48 ± 919.92 and $1151.98 \pm 678.43 \mu\text{m}^2$ per mm^2 respectively, which was lower than the AF group. ($p < 0.01$) In AF group, the density of ACh-positive nerve in the RA, AS and LA was $721.94 \pm 341.07 \mu\text{m}^2$ per mm^2 , 279.86 ± 110.25 and $109.22 \pm 29.86 \mu\text{m}^2$ per mm^2 respectively, which was significantly ($p < 0.001$) lower than the nerve density in control tissues (7102.32 ± 2058.67 , 6093.20 ± 2512.27 , and $5285.54 \pm 1982.96 \mu\text{m}^2$ per mm^2 , respectively). In propranolol group, the density of ACh-positive nerve in RA, AS, LA was $5356.86 \pm 1733.25 \mu\text{m}^2$ per mm^2 , 4774.86 ± 1069.30 and $3550.76 \pm 1399.55 \mu\text{m}^2$ per mm^2 respectively, which was higher than the AF group. ($p < 0.01$) It proved the truth that higher density of TH-positive nerve ($10899.84 \pm 6365.15 \mu\text{m}^2$ per mm^2 , $p < 0.001$) and lower density of ACh-positive nerve ($127.94 \pm 88.98 \mu\text{m}^2$ per mm^2 , $P2/\text{mm}^2$ ($p < 0.01$) and $4223.22 \pm 1188.23 \mu\text{m}^2/\text{mm}^2$ respectively ($p < 0.01$).

Conclusion Sympathetic hyperinnervation and vagal denervation are associated with canine model of sustained AF produced by prolonged left atrial pacing. Propranolol can prevent autonomic remodel to some extent.

e0715 **LEFT ANTERIOR DESCENDING ARTERY DISSECTION AND ACUTE MYOCARDIAL INFARCTION AFTER BLUNT CHEST TRAUMA: TWO CASE REPORT**

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Blunt chest trauma can cause several forms of cardiac injury. Of these, coronary artery dissection and acute myocardial infarction is a

rare complication. We report two cases of the left anterior descending coronary artery dissection and acute myocardial infarction after blunt chest trauma.

e0716 **AN 81-YEAR-OLD MAN WITH DIZZINESS, FATIGUE AND SHORTNESS OF BREATH**

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Case An 81-year-old man presented with dizziness, fatigue and shortness of breath one day after a min-invasive neck spine surgery. The patient said the surgery had been successful, and he was able to get up and walk on the first day, but on the second day he felt dizzy, tired, and dyspnoea. He also found his two hands were swelling. He denied chest pain, unconsciousness, vomiting and other symptoms. The patient was on medication of hypertension and diabetes before the surgery, and both of his wife and son have hypertension. The patient does not smoke nor drink. After surgery, the patient was given antibiotics by venous infusion. On physical examination, the patient looked conscious, well nourished but having a big belly. His temperature was normal. His four extremities were swelling. He had jugular retention. His blood pressure was 164/83 mm Hg, heart rate was 86 bpm and respiratory rate was 24. Heart auscultation revealed no heart murmur and normal heart rhythm. Pulmonary auscultation found some moist rales at the lower part of two lungs. Chest x-ray showed his heart was boot-shaped, lungs were clear and there was a little pleural effusion in the thorax. Cervical vertebra x-ray showed that the third and fourth spine cords were fixed by steel and there was ossification of nuchal ligament. ECG was almost normal. Echocardiography showed that the internal diameter of left atrium was 50 mm at diastolic phase; the right atrium was enlarged and the left ventricular posterior wall a bit thicker; the aortic sinus and proximal ascending aorta were widened; the left ventricular ejection fraction was 66%; the diastolic function was slightly reduced. The complete blood count showed: white-cell count $6.11 \times 10^9/\text{l}$, neutrophil-cell count $4.22 \times 10^9/\text{l}$, percentage of neutrophil-cell 69.1%, red-cell count 4.24×10^{12} , haemoglobin 125.0 g/l, haematocrit 37.6%, platelet count $136 \times 10^9/\text{l}$. The biochemistry test showed: serum potassium 4.1 mmol/l, serum sodium 142.0 mmol/l, serum chloride 99 mmol/l, carbon dioxide 24.0 mmol/l, serum calcium 2.53 mmol/l, creatinine 124.0 ummol/l, blood urea nitrogen 8.2 mmol/l, uric acid 527.0 umol/l. Serum brain natriuretic peptide level: 348 pg/ml. Blood glucose level: 6.88 mmol/l. The diagnosis of this patient was based on his symptoms of fatigue, and shortness of breath at rest; physical examination of jugular retention, lung rales at lower part and ankle oedema; chest x-ray of pleural effusion. These symptoms and findings indicated the patient had pulmonary congestion and systemic congestion. Though ECG was normal, echocardiography showed diastolic dysfunction, and the serum BNP level was significantly raised. Thus the patient was diagnosed as: acute heart failure, diastolic heart failure, NYHA IV, Stage C; hypertension, grade 3; type 2 diabetes mellitus; cervical spondyl-opathy, post mini-invasive spine surgery. The treatment included blood pressure monitoring, urinary volume monitoring and electrocardiographic monitoring. Medications included vasodilator nitrate to relief cardiac workload; loop diuretic furosemide to induce diuresis; ACE inhibitor fosinopril to control hypertension; statin atorvastatin to lower lipid level; Insulin to control glucose level. The patient stayed in hospital for 10 days and discharged with no dyspnoea and low extremity oedema, no pulmonary rales, blood pressure 139/69 mm Hg and heart rate 57 bpm. During the 3 months follow-up after discharge, the patient strictly followed doctor's written instructions on diet restriction and exercise. He measured blood pressure, heart rate and weight and then recorded