

we suggest an endovascular approach should be strongly considered for all RAAA patients with acceptable anatomy.

#### GW27-e0691

##### Artery bypass surgery for aortic stenosis caused hypertension: a case report and clinical analysis

Huang Zhenhua,<sup>1</sup> Jinli Liao,<sup>1</sup> Win Tang,<sup>2</sup> Zhihao Liu,<sup>1</sup> Hong Zhan,<sup>1</sup> Yan Xiong,<sup>1</sup> Yanmei Huang<sup>1</sup>

<sup>1</sup>Department of Emergency, The First Affiliated Hospital of Sun Yat-sen University; <sup>2</sup>Sun Yat-sen University

**OBJECTIVES** To investigate the clinical features of hypertension caused by aortic stenosis, a more precise of diagnosis of aortic stenosis and safe and effective surgical treatment to improve the patients's clinical features of the disease.

**METHODS** observed the patients clinical manifestations, imaging and related literature and we summarized the treatment of aortic stenosis.

**RESULTS** The patient, 44 years old, male, three years ago, has no obvious inducement to have hypertension, the highest blood pressure is 180/90 mmHg, no dizziness, headache, chest pain, chest tightness and other symptoms. At a local hospital he was diagnosed with hypertension, but didn't regularly take anti-hypertensive drugs. In the month of March he felt fatigue after activities like climbing the stairs and had a sense of chest tightness, he needed to take a break to relieve the tightness. October 2015, at a local hospital after appendectomy, the blood pressure was up to 210/120mmHg, and with other therapies increased metering, the effect is not obvious, except with chest tightness, the lower extremities accompanied by numbness, cold, and the arterial pulse on the foot was weak, aortic dissection was considered. The aortic CTA shows: 1. Aortic isthmus (aortic arch below) with partial luminal narrowing significantly, and after narrowing thoracic aortic lumen. The limitations of local area showed mild expansion, multiple collateral vessel formation. 2. The lower thoracic aorta, abdominal aorta and bilateral iliac artery trunk diameter were thinner. The patient was transferred to our hospital cardiac surgery department. Physical Examination: T: 36.5 °C P: 100 beats/min R: 20 beats/min BP: 170/85mmHg. left carotid artery pulse obviously, 3/6 murmur could be heard in the second aortic systolic auscultation, femoral artery fluctuations, thin, and the temperature of the lower limbs significantly was lower than the upper limbs. Echocardiography: hypertensive heart change descending aortic coarctation caused by the left subclavian end descending aortic isthmus stenosis flow and probe beams. ECG: Complete left bundle branch block Diagnosis: 1. aortic stenosis (aortic arch below) 2 hypertension grade 3 very high-risk group. 2015-12-21 it was performed the ascending aorta - the descending aorta bypass surgery. By descending aorta graft line-artificial blood vessel anastomosis proximal end side of the ascending aorta with artificial blood vessels aortic anastomosis side to lift the hypertension caused by aortic stenosis, post-operative blood pressure 140/85mmHg, normal blood pressure after follow-up.

**CONCLUSIONS** During hypertension caused by aortic stenosis and using anti-hypertensive drugs as treatment is mostly ineffective. Surgery is needed and artery bypass grafting operation is simple and effective with few complications.

#### GW27-e0777

##### Prophylactic Use of Noninvasive Positive Pressure Ventilation for Hypoxemia Following Operation of Stanford Type A Aortic Dissection

Yi Yang, Lizhong Sun, Yong Yang, Nan Liu  
Center for Cardiac Intensive Care, Beijing Anzhen Hospital, Capital Medical University, Beijing Institute of Heart Lung and Blood Vessel Diseases

**OBJECTIVES** To assess the efficacy of prophylactic de-escalation use of noninvasive positive pressure ventilation (NPPV) in preventing hypoxemia following extubation after Stanford type A aortic dissection (AD), and the effect on re-intubation and hospitalization.

**METHODS** Since the patients of Stanford type A AD suffering from the highest incidence of hypoxemia post-cardiac surgery, 40 patients were investigated who recovering from Stanford type A AD operation in the Center for Cardiac Intensive Care, Anzhen Hospital between December 1, 2015 and April 30, 2016, and meet the inclusion criterion

after extubation. The patients were random divided into two groups (simple randomization with RandA1.0 software), each group contained 20 patients: traditional oxygen treatment with mask vs. NPPV with mask (age of years 54.6±8.9 vs. 53.8±9.7, p>0.05; male 60% vs. 65%, p>0.05; APACHE II 15.8±1.9 vs. 16.5±2.1, p>0.05). Oxygen treatment settings: flux of oxygen was 6-10L/min, and fraction of inspired oxygen (FiO2) was 35-55%. NPPV initial 2 hours settings: inspiratory pressure (IPAP) of 14-16 cmH2O, expiratory pressure (EPAP) of 6-8 cmH2O, FiO2 35-55%; 2-8 h the parameters were decreased: IPAP 10-12cmH2O, EPAP 4cmH2O; after 8 h the NPPV was finished and the oxygen treatment instead. Make a comparison in the clinical effect at different times, and compare re-intubation, complication, mortality, intensive care unit (ICU) duration and hospitalization between two groups.

**RESULTS** PaO2 and PaO2/FiO2 were higher in the prophylactic NPPV group after 2h (84.5(78.7,87.1) vs. 94.7(89.7,100.1), 167.0±18.9 vs. 192.7±31.2, both p<0.05), 8h (86.3(82.3,95.6) vs. 99.1(90.3,132.8), 172.5(164.7,191.2) vs. 198.2(180.5,246.2), both p<0.05), 24h (87.3±12.9 vs. 100.0±18.9, 170.1±29.8 vs. 197.5±36.8, both p<0.05) and 3 day (86.8(79.4,89.6) vs. 98.2(87.4,110.5), 164.4±23.8 vs. 193.2±37.1, both p<0.05), and respiratory rate was lower in the NPPV group at the same time. Heart rate and mean arterial pressure were lower in NPPV group at 24 h and 3d. At 3d in NPPV group PaCO2 was lower, and left ventricular ejection fraction was improved (53.5±6.4 vs. 58.5±4.7, p<0.05). Compared the two groups, there were no statistical difference in the re-intubation incidence (15% vs. 5%, p>0.05), hospital mortality (10% vs. 10%, p>0.05) and ICU time (h) (102.2±79.1 vs. 103.7±76.4, p>0.05). But the oxygen treatment led to a higher incidence of atelectasis (30% vs. 5%, p<0.05), and longer hospitalization time (15.5(12.3,23.5) vs. 13.0(12.0,15.0), p<0.05). However, lower setting NPPV indicated no obvious differences in abdominal flatulence (5% vs. 25%, p>0.05), intolerance (0 vs. 15%, p>0.05) and facial pressure ulcers (0 vs. 5%, p>0.05).

**CONCLUSIONS** In the early stage after extubation, prophylactic de-escalation therapy of NPPV for patients post-operation of Stanford type A AD, may quickly improve oxygenation, decrease respiratory work, and increase the heart function, avoid atelectasis by the positive airway pressure. Furthermore, there was no statistical difference in the complications, and the hospital stay was shortened by NPPV.

#### GW27-e1232

##### The Clinical Expert Consensus of Extracorporeal CPR guided by Delphi method

Yu Jie, Feilong Hei  
Beijing Fuwai Hospital, Chinese Academy of Medical Sciences

**OBJECTIVES** The aim of this study was to investigate the key issues of the treatment of ECPR and to preliminarily achieve the clinical expert consensus of ECPR suitable for China's national conditions.

**METHODS** We analyzed the domestic and overseas literatures of ECPR and designed questionnaires by using Delphi method. Experts of extracorporeal circulation and critical care medicine were selected to conduct the survey. The questionnaires included the key issues of the treatment of ECPR, such as the definition of ECPR, the selection of patients, the clinical management of ECMO, etc. After the collection of the first round questionnaires, data was analyzed by the research group and the second round questionnaires were designed. SPSS 22.0 was used to analyze the result, including the concentration and coordination of the experts' opinions and the reliability of the questionnaires. The clinical expert consensus of ECPR was achieved after analyzing the items of the questionnaires.

**RESULTS** A total of two rounds of expert consultation were conducted. The first round investigation included 25 experts that all of whom were in senior positions and had worked over 10 years. The positive coefficient of the experts was 100%. In the first round, over 95% of the experts agreed that the definition of ECPR was CPR assisted by ECMO for patients who couldn't achieve ROSC after CPR over 20 minutes or those couldn't maintain ROSC because of repeating heart arrest. Over 70% of the experts agreed that the indications of ECPR were cardiogenic cardiac arrest, pulmonary embolism, cardiogenic shock and heart arrest caused by hypothermia or toxication. The contraindications of ECPR included brain death or irreversible brain injury, uncontrollable hemorrhage, terminal malignant tumors and consent of termination of treatment. The first round investigation achieved 30 consensuses, including medical