venous thrombosis

Congenital interrupted inferior vena cava: a rare risk factor for deep venous thrombosis

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OBJECTIVES To explore the clinical feature of congenital interrupted inferior vena cava and its correlation with deep venous thrombosis (DVT).

METHODS Patients with DVT due to congenital interrupted inferior vena cava were enrolled. Clinical and ultrasonography, CT, MRI findings were analyzed retrospectively.

RESULTS Three patients were identified (two man and one woman) between 2000 and 2013. Age at diagnosis was 17, 26, 28 years respectively. One patient presented with swelling and tenderness of right crus. The other two patients presented with left fossa ilica pain and lower limbs swelling and one of them with dyspnea, tachypnea. None of them had an underlying coagulopathy or precipitating factors including immobilization, surgery, oral contraceptive pills (OCPs), trauma, and malignancy. Vascular ultrasound and computed tomography (CT) scan/MRI suggested DVT (thrombus was limited to the iliac vein in one) and total interruption of IVC below the hepatic vein with azygos continuation, draining into the superior vena cava. In patient presented with dyspnea, tachypnea, MDCT demonstrated thrombus in the branch of right pulmonary artery.

CONCLUSIONS In young patients with an idiopathic DVT, vascular ultrasound and CT scan/MRI should be performed to evaluate the venous system and rule out the rare possibility of an IVC anomaly.

Transcatheter intervention of mesh-like ASD under TTE in infants

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OBJECTIVES To evaluate the availability transcatheter intervention of mesh-like atrial septal defect (ASD) under transthoracic echocardiography (TTE) in infants.

METHODS 27 cases with mesh-like ASD were enrolled in our group between September 2007 and December 2012, 11 boys and 16 girls, 6 months to 11 months (median: 8.9 months), bodyweight varying from 6 kg to 11 kg (median: 8.6 kg). 2 patients associated with pulmonic stenosis. The diagnosis was confirmed by intraoperative angiography and TTE. Echocardiography aimed at establishing the delivery pathway and determining the plasticity of the implanted occluders, especially to help to select the proper hole to implant the occluder.

RESULTS 26 cases underwent successful transcatheter intervention with one occlude each without residual shunt. The implanted occluder recolled with normal plasticity after being released. The other one was converted to surgical repair after implantation for high degree atrioventricular block.

CONCLUSIONS Transcatheter intervention of mesh-like ASD under TTE in infants can safely work. Echocardiography plays a key role in establishment of delivery pathway and definitive occluder releasing during transcatheter intervention of these patients.

RHEUMATIC AND VALVULAR HEART DISEASE

Transcatheter paravalvular leakage intervention—a new alternative for open surgery?

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OBJECTIVES To evaluate the safety and efficacy of transcatheter intervention of paravalvular leakage (PVL) after prosthetic valve replacement.

METHODS From September 2011 to April 2015, 38 patients of paravalvular leakage after prosthetic valve replacement underwent interventional therapy. There were 30 male and 8 female, with mean age: 50.8±13.4 (23-76) years old. 23 patients were diagnosed as aortic PVL, 14 patients were diagnosed as mitral PVL and 1 patient was diagnosed as tricuspid PVL. Previously, 35 patients underwent mechanical valve replacement and 3 patients had tissue valve replacement, with 12 patients had a history of previous infective endocarditis. There were 4 cases of NYHA heart function: II, 20 cases: III, and 14 cases: IV. The period of time between transcatheter intervention and operative intervention was 3.7±4.2 years, with PVL regurgitation volume: 10.1±5.7 ml. Transcatheter intervention was carried out in the catheterization laboratory or hybrid room with the patient under local anesthesia or general anesthesia. By puncturing femoral artery and implantation of different congenital heart disease devices, the aortic PVL were occluded interventionally. Follow-up evaluation included peri-operative mortality, complications and postoperative residual shunt. The average follow-up time was 21 months (1-38 months).

RESULTS All the patients were successfully treated with transcatheter intervention and the success rate of transcatheter intervention was 100%. 1 patients was implanted with 3 occluders, 5 patients were implanted with 2 occluders with the other 32 patients had one occluder each. In total, there were 8 muscular ventricular septal defect occluders, 12 patent ductus arteriosus occluders and 25 valvular lesions occluders. The average operation time of patients and the DSA radiation time were 20.3±12.2 min, with average hospitalization time of 7.5±4.9 days. The main post-operative complications included 3 cases transferred to open surgery (7.9%), 2 cases of hematuria needing dialysis (5.3%) and 3 cases of hematuria (7.9%). During the follow-up of patients, there was no death, PVL regurgitation volume decreased to 1.1±0.7 ml (p<0.05) with improved heart function.

CONCLUSIONS The traditional treatment of paravalvular leakage after valve replacement need thoracotomy, extracorporeal circulation, and open surgery. There was great trauma, high risk and many complications. Transcatheter intervention of PVL has the advantages of simpler and safe approach, less trauma, shorter time of hospitalization, faster post-operative recovery and lower treatment cost. This method is one of the new technologies in the field of minimally invasive cardiac surgery in recent years. By improving operation skills, choosing individualized occluders and treatment of early hemolytic complications, the success rate and long-term effect of interventional therapy can get further improved. Transcatheter paravalvular leakage intervention could be a new alternative for open surgery.

GW26-e4766

A case-control study on risk factors of calcific aortic valve disease in a Chinese population

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OBJECTIVES Calcific aortic valve disease (CVID) is one of the leading cardiovascular diseases and affects a large number of old people. We found that 12.8% of people older than 45 years suffered from CVID. However, the pathogenesis and risk factors of CVID in the Chinese population remains unclear. In this study, we collected clinical data and analyzed the risk factors for CVID.

METHODS The case-control study was performed in 2894 subjects (age:45) who had been examined in the Department of Cardiology in Nanfang Hospital from 2005 to 2012. These subjects were divided into two groups according to echocardiography results: CAVD group (n=1374) and control group (n=1520). Detailed data on the patients were collected and evaluated by univariate and multivariate logistic regression analyses.

RESULTS A total of 2894 subjects were enrolled in this study. In CAVD group, 918 of 1374 patients (67%) suffered from calcific aortic valve stenosis, 918 of 1374 patients (67%) suffered from calcific aortic valve insufficiency, 154 of 1374 patients (11%) suffered from both calcific aortic stenosis and aortic valve insufficiency, and 278 of 1374 patients (20%) suffered from aortic valve calcification without calcific aortic stenosis or aortic valve insufficiency. To screen out the candidate risk factors, a univariate factor logistic regression analysis was used to analyze the clinical data in CAVD group and control group. The results showed that gender (P=0.003, OR=0.797), age (P=0.000, OR=1.196), aortic atherosclerosis (P=0.000, OR=1.68), BMI (P=0.000, OR=0.896), eGFR (P=0.000, OR=0.947), CR (P=0.000, OR=1.034),
The aim of the present research was to investigate whether D-dimer can predict all-cause mortality and cardiovascular events in patients receiving warfarin treatment after went mechanical heart valve replacement. A prospective and observational study. 1163 Patients(4.0%) had normal D-dimer levels(<255ng/ml); Log-rank test revealed that patients with elevated D-dimer levels experienced higher cardiovascular events(Hazard ratio:12.82, 95% CI of ratio:7.15-22.98, P<0.001) and all-cause mortality (Hazard ratio:9.36, 95% CI of ratio:5.28-16.60, P<0.0001).

D-dimer might be a useful marker to predict cardiovascular events and all-cause mortality in patients receiving warfarin anticoagulation after mechanical heart valve replacement. (ClinicalTrials.gov Identifier: NCT01996657 ).

**Annotations**: The SNP NR1I2 7635G-C are the upstream factors impacting an individual variability of warfarin maintenance dose in Han Chinese, methods.

**GW26-e1255**

**Genetic Polymorphisms of PXR and POR Are Associated with Increased Warfarin Maintenance Dose in Han Chinese**

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**OBJECTIVES** The aim of this current study is to explore whether PXR, POR, and CYP2C9 IVS3-65G-C are the upstream factors impacting an individual variability of warfarin maintenance dose in Han Chinese, methods.

**GW26-e1308**

**Analysis of clinical symptoms of 67 cases of infective endocarditis**

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**OBJECTIVES** To investigate the infective endocarditis (infective endocarditis, IE), pathogenic, clinical features and treatment strategies.

**METHODS** A retrospective analysis of clinical data of the First Affiliated Hospital of Nanchang University about five years, 67 cases of IE.

**RESULTS** Streplococcus viridans accounted for 36.8%, 6 cases of Staphylococcus aureus accounted for 31.6%, Structural heart disease, 59 cases (88.1%), rheumatic heart disease in 22 cases (37.2%), including two cases of prosthetic valve, congenital heart disease in 25 cases (42.3%). Ultrasound technology in the detection rate of cardiac neoplasm in 56 cases (93.5%), the positive rate is much higher than the blood culture.