

C ( $63 \pm 11$  mm Hg) was higher than that in group B ( $56 \pm 11$  mm Hg) and group A ( $49 \pm 11$  mm Hg). The pulmonary-to-systemic (Pp/Ps) pressure ratio was  $0.60 \pm 0.09$ ,  $0.74 \pm 0.16$  and  $0.91 \pm 0.11$  ( $p < 0.05$ ) in group A, group B and group C, respectively. Although the pulmonary-to-systemic blood flow (Qp/Qs) ratio ( $4.84 \pm 1.94$  vs  $4.91 \pm 3.11$ ), pulmonary vascular resistance ( $3.86 \pm 2.23$  vs  $5.67 \pm 3.88$  vs  $12.64 \pm 3.19$  Wood units/ $m^2$ ), pulmonary-to-systemic vascular resistance (Rp/Rs) ratio ( $0.13 \pm 0.06$  vs  $0.31 \pm 0.2$ ) were not statistically different between group A and group B, they were significantly lower or higher than those in group C, which were  $1.58 \pm 0.67$ ,  $12.64 \pm 3.19$  Wood U/ $m^2$  and  $0.70 \pm 0.24$ , respectively. And the cardiac Index ( $14.68 \pm 4.98$  vs  $10.04 \pm 4.49$  vs  $3.99 \pm 0.71$  l/ $m^2$ /min) decreased significantly from group A to group C. Multiple linear regression analysis showed a significant correlation between the decrease in mPAP after device closure and the baseline EDVI, Pp/Ps ratio and Rp/Rs ratio ( $p < 0.05$ ). All the patients in group A and group B were asymptomatic and the devices were delivered. Devices were not delivered in 3 patients in group C due to chest tightness, dyspnoea and a drop in blood pressure after ductus closure. Conclusion: In patients with PDA and severe PAH, the baseline haemodynamic parameters are capable of predicting the outcome of transcatheter PDA closure. The decrease in mPAP after device closure is well correlated with the baseline EDVI, Pp/Ps ratio, and Rp/Rs ratio. Higher EDVI, lower Pp/Ps and Rp/Rs ratios predicts a greater postprocedural decrease in mPAP.

[gwv22-e0362]

#### ESTIMATION OF HAEMODYNAMICS PARAMETERS TO TRANSCATHETER CLOSURE OF PATENT DUCTUS ARTERIOSUS COMPLICATED SEVERE PULMONARY ARTERIAL HYPERTENSION

Bei Lv, Xian-yang Zhu, Duan-zhen Zhang *Department of Congenital Heart Disease The General Hospital of Shenyang Military Region Shenyang 110016 China*

10.1136/heartjnl-2011-300867.526

**Objective** The present study aims to explore the value of haemodynamic parameters in predicting the outcome of transcatheter ductus closure in patients with PDA and severe PAH.

**Methods** Between April 2006 and February 2011, 63 patients with PDA and severe PAH underwent transcatheter closure of PDA. Before percutaneous ductus closure, systolic pulmonary arterial pressure (sPAP)  $\geq 70$  mm Hg and pulmonary capillary wedge pressure  $\leq 15$  mm Hg and those who underwent cardiac catheterisation under local anaesthesia were included in this study. According to postclosure sPAP, patients were divided into three groups: *Group A*: patients with sPAP  $< 40$  mm Hg; *Group B*: patients with sPAP ranged from 40 to 70 mm Hg and *Group C*: patients with sPAP  $> 70$  mm Hg after PDA closure.

**Results** A total of 63 patients (49 females) aged from 10 to 60 ( $32.1 \pm 13.8$ ) years were recruited into this study. There was no significant differences in the age and the size of PDA between groups. The sPAP ( $83 \pm 14$  vs  $99 \pm 20$  vs  $114 \pm 14$  mm Hg;  $p < 0.05$ ) and mean PAP ( $6 \pm 11$  vs  $70 \pm 13$  vs  $80 \pm 10$  mm Hg;  $p < 0.05$ ) increased from group A to group C and diastolic PAP in group