[gw22-e1018]

THE RELATIONSHIP OF AORTIC ROOT, ARCH CONSTRUCTIONS AND PHYSIOLOGICAL FACTORS

Wang Yanli[1], Liang yu lu[1], Jie Huang[2], Wang Liang[3] *[1]Shanghai Oriental Hospital, Oriental Hospital Affiliated to Tong Ji University, Shanghai, China; [2]Yancheng No.1 People's Hospital, Hospital of ENT Department, Yancheng, China; [3]Tongji University, Affiliated Lung Branch Hospital, Tongji, China*

10.1136/heartjnl-2011-300867.251

Objective The influential factor on aortic root constructions (including aortic sinus, aortic annulus) is disputed. It is still contested whether the height or the body surface area (BSA) is the major factor to determine the aortic structure. In this study, we explored relations among aortic root constructions (including aortic sinus, aortic annulus), aortic arch and physiological factors in a population-based sample.

Methods We measured diameters of aortic sinus, aortic annulus, aortic arch in 1010 subjects with 2-dimensional echocardiography. At the same time, we recorded the related physiological factors such as gender, age, height, weight, body mass index (BMI), body surface area (BSA), systolic blood pressure (SBP), diastolic blood pressure (DBP) and pulse pressure (PP).

Results BSA was the best independent predictor of all the variables, and showed a linear relation to aortic sinus, aortic annulus and arch dimensions. The Normative diameter was 14.30*BSA+15.36 for aortic sinus, 7.18*BSA+14.34 for aortic annulus, 8.751*BSA+16.00 for aortic arch. The correlation coefficients were 0.54, 0.37, 0.39 respectively ($p<0.01$).

Conclusions BSA was the main determinative factor of aortic root, arch construction.