



Congenital Heart Disease

BLOOD PRESSURE IN ADULT PATIENTS WITH CONGENITAL HEART DISEASE

Poster Contributions
Poster Hall B1
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Session Title: The Vasculature in Congenital Heart Disease
Abstract Category: 10. Congenital Heart Disease: Adult
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Background: We previously reported that the incidence of hypertension in adult patient with congenital heart disease (CHD) is almost same as that in general population. However, it could be underestimated, because the patients are still young. Moreover, we also reported that the surgical intervention for aortic arch increases pressure wave reflection, which would elevate BP. Therefore, we compared the brachial systolic BP (SBP) and the reflected wave blood pressure (SBP2) in adult patients with CHD with those in each age decade of general population.

Methods: This study enrolled 100 adult patients with CHD. The brachial SBP and SBP2 were measured by HEM-9000AI (Omron Healthcare Co., LTD., Kyoto, Japan). The SBP and SBP2 were compared with those by age and gender in general population (Hypertension Res 2013;36:50-57). A patient whose brachial SBP/diastolic BP was over 140/90 mmHg was diagnosed as hypertension. A patient whose SBP/SBP2 was over 2SD (= 2.3%) of those by age and gender in general population was defined as high SBP/SBP2.

Results: The patients' age was 37.0 ± 15.0 years (20 - 76). NYHA class of the patients was I:68, II:25, III:7, IV:0. Sixteen patients were suffered from cyanosis ($SpO_2 < 95\%$) and their BNP was 69.7 ± 152.5 pg/ml. The SBP was 117.7 ± 20.1 mmHg and SBP2 was 105.8 ± 20.2 mmHg. Thirteen patients were diagnosed as hypertension. Twenty patients were defined as high SBP (20%) and 22 patients were defined as high SBP2 (22%).

Conclusion: The incidence of high SBP/SBP2 in adult patients with CHD is high. Early intervention would be essential in order to avoid increment of pressure load for systemic ventricle that has been variously loaded from birth.