学 位 論 文 の 要 旨

三 重 大 学

所 属	三重大学大学院医学系研究科 甲 生命医科学専攻 臨床医学系講座 胸部心臓血管外科学分野	氏 名	やまもと なおき 山本 直樹

主論文の題名

Impact of valvuloarterial impedance on left ventricular reverse remodeling after aortic valve neocuspidization

主論文の要旨

Objectives:

The aim of this study was to verify the impact of global left ventricular (LV) afterload on the LV reverse remodeling following aortic valve neocuspidization (AVNeo).

Methods:

Data-available consecutive 38 patients (median age, 77; interquartile range, 72.8-82.0) undergoing AVNeo for severe aortic stenosis were enrolled in this study. Preoperative and the last follow-up echocardiographic data were retrospectively analyzed including the valvuloarterial impedance (Zva), a marker of global LV afterload. Reduction in LV geometry index (LVGI) and relative wall thickness (RWT) were used as an indicator for LV reverse remodeling.

Results:

The Zva reduced in 24 patients (63.2%) during the follow-up period (median, 12 months). Reduction in Zva significantly correlated to improvement of LV geometry (LVGI (r = 0.400, p = 0.013) and RWT (r = 0.627, p < 0.001)), whereas increase in effective orifice area index did not significantly correlate to LVGI (r = 0.009, p = 0.957), or RWT (r = 0.105, p = 0.529)). The reduction in Zva was the multivariate predictor of LV reverse remodeling.

Conclusions:

Low global LV afterload led to significant LV reverse remodeling even after AVNeo, which could achieve better valve performance than the conventional bioprostheses.