

JSPCCS-AEPC Joint session

JSPCCS-AEPC Joint session (II-AEPCJS)

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[II-AEPCJS-1]Impacts of transcatheter balloon aortic valvuloplasty in children with aortic valvular stenosis

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Background: It is controversial whether children with isolated aortic valvular stenosis undergo transcatheter balloon aortic valvotomy (BAV) or surgical aortic valvotomy (SAV) as the first intervention. This multicenter retrospective cohort study aimed to explore the rates of survival and reintervention after BAV or SAV among them.

Methods: We studied subjects who underwent BAV or SAV at 4 tertiary congenital heart centers in Kyushu, Japan. We compared survival, and freedom from reintervention and aortic valve replacement (prosthetic or autograft) between the groups

Results: A total of 78 subjects were enrolled. Age and aortic valve annulus z-score at the first intervention were 70 (23—415) months and -0.72 (-1.84—0.60), respectively. There were 62 BAV and 16 SAV. During the follow-up period of 13.3 (5.9—16.7) years, there was no significant difference in 10-year survival between the groups (BAV: 88% vs SAV:100%, $P=0.162$). Reinterventions included BAV in 3, surgical valve plasty in 9, Ross operation in 17, and prosthetic valve replacement in 6. Freedom from reintervention at 10 years were 46% and 65% in BAV and SAV subjects, respectively ($P=0.592$), while freedom from valve replacement at 10 years were 77% and 85% in BAV and SAV subjects, respectively ($P=0.988$).

Conclusions: Long-term survivals after BAV and SAV were acceptable. Freedom from reintervention and from prosthetic/autograft valve replacement were similar between the groups.