

Atrial fenestration during AVSD repair is associated with increased mortality

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A new study, presented today at the AATS 101st Annual Meeting, shows an association between decreased survival at five years and leaving an atrial communication at biventricular repair of unbalanced AVSD after adjusting for other known risk factors. During repair of atrioventricular septal defect (AVSD), surgeons may leave an atrial level shunt when they have concerns about postoperative pulmonary hypertension, a hypoplastic right ventricle (RV), hypoplastic left ventricle (LV), or as part of their routine practice. The study sought to determine factors associated with mortality after biventricular repair of AVSD.

The study included 581 patients enrolled from 31 Congenital Heart Surgeons' Society (CHSS) institutions from Jan. 1, 2012—June 1, 2020. Parametric multiphase hazard analysis was used to identify factors associated with mortality. A random effect model was used to account for possible inter-institutional variability in mortality.

An atrial fenestration was placed during biventricular repair in 23 percent of patients. Overall, five-year survival after repair was 91 percent. The atrial fenestration group had an 83 percent five-year survival compared to 93 percent in the non-fenestrated group. According to Connor Callahan, the John W. Kirklin/David Ashburn Fellow of the Congenital Heart Surgeons' Society Data Center and University of Toronto, General Surgery Resident at Washington University/Barnes-Jewish Hospital, "Atrial fenestration was associated with reduced long-term survival in our study. As a result of these findings, institutions and surgeons that routinely use fenestration may reevaluate its role in their practice."

While leaving an atrial communication at biventricular repair of unbalanced AVSD is associated with significantly reduced [long-term survival](#) after adjusting for other known [risk factors](#), it is unknown whether this association is causal or related to unmeasured factors, or a combination of

both. The impact of fenestration can optimally be derived from a randomized clinical trial in the future.

Provided by American Association for Thoracic Surgery

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