The Univentricular Heart: Revisited

Abstract:

Introduction: A univentricular (UV) heart is found when both atria drain mainly into one ventricle; while if either ventricle cannot sustain the systemic or the pulmonary circulation, a *functionally* UV heart emerges. UV heart is the source of hot debates & discussions for decades that stem from controversies in terminologies, analysis, and management.
Objective: To study the morphological pattern of univentricular hearts.
Design: Cohort, descriptive study.
Setting: Review 13-year data from the file system of a high-volume, tertiary, teaching cardiac centre and study the patients having pathologies meeting the definition of UV heart.
Results: 461 patients have UV hearts; constituting 1.4 % of all patients with a congenital heart disease (CHD) visiting the centre of the study.
Functionally UV heart in the form of biventricular atrioventricular (AV) connection plus one ventriculoarterial (VA) connection was seen in 179 cases (38 %) with aortic atresia being the most common (N=98; 55%).
On the other hand, UV AV connection was seen in 282 cases (62 %). Under this category, 203 cases (72 %) shows an absent AV connection and 79 hearts (28 %) with double-inlet anatomy.
Conclusion: UV heart is a rare complex CHD with lots of scientific debates. It is hoped that this long-term study will be the basis and a reference to paediatric cardiologists, echocardiographers, and other interested professionals.

Key words: *univentricular heart, single ventricle, common ventricle, two-ventricle repair, one-ventricle repair*

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