Correspondence

Letter by Singh Regarding Article, “Berlin Heart EXCOR Pediatric Ventricular Assist Device for Bridge to Heart Transplantation in US Children”

To the Editor:

The description of the overall Berlin heart EXCOR experience in US children by Almond et al is an important contribution to pediatric heart failure literature. After a careful evaluation of baseline factors and competing outcomes in EXCOR recipients, the authors found that reduced end-organ function—renal or hepatic—was independently associated with death after EXCOR implantation. Using the Schwartz equation to estimate glomerular filtration rate (GFR), children with a GFR value of 30% to 99% predicted for age were assigned the risk category of “moderate renal dysfunction” and were reported to be at higher risk of death after EXCOR compared with children with normal GFR. Although the key message of initiating EXCOR support in children in advanced heart failure before they are too sick is important, it is difficult to accept that either moderate renal dysfunction or the associated mortality risk begins at the GFR value of 99% predicted. Because the normal GFR at any pediatric age is a range of values and the normal range used in the study (or a reference for such values) was not provided, it is also unclear whether 100% predicted GFR values were the midpoint or the lower end of some range. These details are important for physicians trying to apply this knowledge in patient selection, in determining optimal timing for EXCOR, or in counseling parents regarding the risk benefit of EXCOR implantation in their child. They will also be important for investigators trying to replicate these results or assess risk factors in future cohorts. Determining optimal timing for initiating mechanical support in children with advanced heart failure will be an important area of research in the next decade. The article by Almond et al provides significant initial insights.

Disclosures

None.

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References


