and share their knowledge with adult MCS surgeons, adding an important BVAD option for the adult MCS team.

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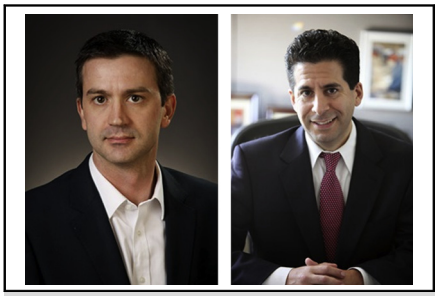
Commentary: Rejuvenation of a trusted tool

Chet R. Villa, MD, and David L. S. Morales, MD



Chet R. Villa, MD, and David L. S. Morales, MD

CENTRAL MESSAGE

Patient selection remains fundamental to outcomes even as the VAD armamentarium expands and evolves.

Axial and centrifugal continuous-flow (cf) ventricular assist devices (VADs) rapidly supplanted pulsatile VADs as the devices of choice for adults in the mid-to-late 2000s. Although the field has largely consolidated toward the use of cfVADs in large patients requiring left ventricular support alone, the anatomic challenges of cfVAD implantation in children (generally <20 kg), certain adults with congenital heart disease, and patients requiring biventricular support require a more individualized approach.

In the current issue of the *Journal*, Bartfay and colleagues[1] describe the use of the EXCOR (Berlin Heart, Inc, The Woodlands, Tex) in these populations. The overall outcomes are good and underscore the fact that the EXCOR performs quite well in appropriately selected patients. These data are especially notable when considering the current study also depicts feasibility and utility of discharge on the EXCOR with the mobile driving unit. The study is consistent with overall outcomes within the field showing improved outcomes in the current era as patient selection and anticoagulation evolve and centers garner more experience.[2,3] However, a more in-depth examination of the use of the device by the authors in a biventricular assist device (BiVAD) configuration is warranted. The current results are notably better than the larger experience within the field, where BiVAD support has a 6-month survival of ∼65%.[4] This difference in outcome is likely a function of patient characteristics as well as a very liberal approach to the use of BiVAD support based on preoperative right ventricular function.

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Disclosures: Dr Morales is a consultant for Berlin Heart, Medtronic, Abbott, and SynCardia. Dr Villa reported no conflicts of interest.

The *Journal* policy requires editors and reviewers to disclose conflicts of interest and to decline handling or reviewing manuscripts for which they may have a conflict of interest. The editors and reviewers of this article have no conflicts of interest.

Received for publication May 7, 2020; revisions received May 7, 2020; accepted for publication May 11, 2020; available ahead of print May 25, 2020.

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J Thorac Cardiovasc Surg 2021;161:1466-7
0022-5223/$36.00

http://dx.doi.org/10.1016/j.jtcvs.2020.05.039

However, many would argue that most of these patients did not need a BiVAD. The authors fall into the common misconception that the use of a BiVAD is equal to the need of a BiVAD.

While late implantation of right ventricular support after left VAD is clearly a risk factor for poor outcomes,[5] "prophylactic" use of BiVAD therapy has not been shown to improve outcomes after controlling for preoperative patient characteristics.[6] These data, in conjunction with the broader outcomes in patients implanted with a left cfVAD, suggest the focus should be on earlier implantation rather broader use of BiVAD therapy.[7] There is morbidity and mortality associated with the use of BiVAD therapy when left VAD alone will suffice in 90% to 95% of patients. Bartfay and colleagues have described the potential utility of the EXCOR in the current era; however, outcomes can only be optimized when the right device is implanted in the right patient at the right time, which regularly results in no right VAD.

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Commentary: The pneumatic para-trouper

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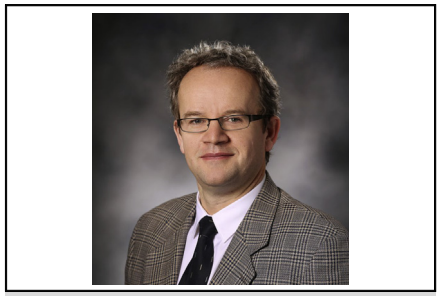

Tomasz A. Timek, MD, PhD

CENTRAL MESSAGE

The EXCOR pneumatic paracorporeal ventricular assist device offers good clinical outcomes as a bridge to transplantation in adult and pediatric patients.

Advanced congestive heart failure has reached epidemic proportions in the United States, with the number of end-stage patients exceeding the number of available organs for transplantation by an order of magnitude.[1,2] Mechanical support devices have been introduced and refined to offer bridging and long-term therapy for the failing left ventricle, with implantable continuous-flow devices now offering 2-year outcomes that rival heart transplantation.[3] However, pediatric patients and adults with right ventricular failure are often not candidates for this life-saving therapy and require in-hospital extracorporeal support, which is associated with significant morbidity, mortality, and cost. In the current issue of the *Journal*, Bartfay and colleagues[4] report their experience with the EXCOR pneumatic paracorporeal

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Disclosures: The author reported no conflicts of interest.

The *Journal* policy requires editors and reviewers to disclose conflicts of interest and to decline handling or reviewing manuscripts for which they may have a conflict of interest. The editors and reviewers of this article have no conflicts of interest.

Received for publication May 31, 2020; revisions received May 31, 2020; accepted for publication June 2, 2020; available ahead of print June 23, 2020.

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J Thorac Cardiovasc Surg 2021;161:1467-8
0022-5223/$36.00

http://dx.doi.org/10.1016/j.jtcvs.2020.06.009