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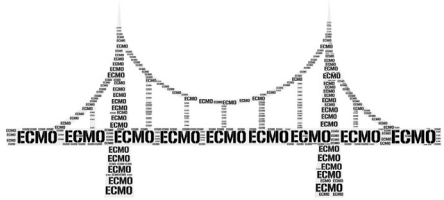
Commentary: Burning Your Bridges

Jeremiah W. Awori Hayanga, MD, MPH, Ankit Dhamija, MD, Heather K. Hayanga, MD, MPH, James Fugett, MS, and Alper Toker, MD

In this edition, Kukreja et al proffer a retrospective review from a single center in which they analyze data pertaining to patients who required extracorporeal support as a bridge to lung transplantation between 2010 and 2018.[1] The analysis elucidates differences in outcomes between those successfully bridged versus those who failed. Additionally, the authors report discrepancies in results in recipients who were listed electively versus those listed emergently. The report is timely, relevant and, in particular, addresses the fate of those patients who were placed on extracorporeal membrane oxygenation (ECMO) but not ultimately listed for transplantation. Their results reflect reports in the literature that have demonstrated steady improvement in ECMO outcomes over the past decade.[2] Indeed, bridging to lung transplantation using mechanical support may conceivably surpass mechanical ventilation as the bridging option of choice.[3] One must, nevertheless, bear in mind that the small sample size precluded the ability to perform multivariate analysis, and the conclusions are derived purely from univariate analysis. Furthermore, the independent effects of collinearity and confounding have not necessarily been comprehensively discussed. The results are nevertheless, compelling.

The authors duly implicate the role of right ventricular dysfunction as an Achilles' heel and indeed one that, anecdotally, has plagued ECMO bridging from the outset. They provide the tacit acknowledgment of the nuanced complexity of blood type B, its relative rarity, and its consequent ability to prolong waitlist time. Albeit without a reference height, the impact of short stature was quantified as a day in waitlist duration for every centimeter decrease in height. One assumes this to be a deviation from average US height. Most ambitious in this account, however, was the enthusiasm and willingness to tackle and list patients who had been emergently placed on mechanical support without any prior multidisciplinary assessment or previous transplant evaluation. Approximately one-third of all the recipients fulfilled these criteria.



Burning Your Bridges

Central Message

Extracorporeal membrane oxygenation as a bridge to transplant has yielded positive outcomes. However, in the context of pulmonary hypertension and in emergently listed candidates one must exercise caution in this group of patients most uniquely capable of burning the very bridge to transplantation on which they are supported.

Vociferous arguments exist both for and against this practice. The excellent outcomes, however, must duly be acknowledged and for which the authors will be applauded as kudos for a high-risk undertaking. Germane to the ethical debate, it is clear that the patients placed on ECMO but not ultimately listed had been offered the only chance of life without which they would have had no options (without extracorporeal support). Nevertheless, there is a high socioeconomic and geopolitical burden inherent in this approach that would argue against it. This controversy is particularly poignant in the context of E-cigarette or Vaping Use-Associated Lung Injury or in the era of COVID-19.[4,5] In keeping with the ISHLT recommendations and within the ethical prism of the narrative, however, one must still maintain an abundance of caution in pursuing transplantation in a cohort of patients most uniquely capable of burning the very bridge to transplantation on which they are supported.[6]

Abbreviations: ECMO, Extracorporeal Membrane Oxygenation; EVALI, E-cigarette or Vaping Use-Associated Lung Injury; COVID-19, Corona Virus Disease 2019; ISHLT, The International Society for Heart and Lung Transplantation

Department of Cardiovascular and Thoracic Surgery, West Virginia University, Morgantown, West Virginia

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Address reprint requests to J.W. Awori Hayanga MD, MPH, Department of Cardiovascular and Thoracic Surgery, West Virginia University, 1 Medical Center Dr, Morgantown, WV 26505 E-mail: jeremiah.hayanga@wvumedicine.org

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