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Commentary: The value of access agility in the world of transcatheter aortic valve replacement

Kimberly A. Holst, MD, and Juan A. Crestanello, MD

Allen and colleagues¹ explored the Society of Thoracic Surgeons/American College of Cardiology Transcatheter Valve Therapy Registry to assess outcomes of patients undergoing Sapien 3 (Edwards Lifesciences, Irvine, Calif) transcatheter aortic valve replacement (TAVR) via either transcarotid (TC) or transthoracic (ie, transaortic or transapical) approach. The authors performed a propensity score-matched analysis and found that patients who underwent TC TAVR had shorter hospital length of stay, lower rates of postoperative morbidity, and lower mortality compared with transthoracic approaches; the analysis accounted for year of procedure in an attempt to address the influence of era. Although included in the Transcatheter Valve Therapy Registry dataset, it is difficult to assess the degree of aortic calcification, carotid stenosis, and neurologic status; thus, readers may have difficulty applying these findings directly to an individual patient.

The authors have reinforced the suitability of the TC approach as a safe alternative for TAVR access² and demonstrate that frequency of transthoracic TAVR access has steadily decreased and since 2019, the TC approach is performed more frequently than the transthoracic approach.

With continued advances in technology and progressive decreases in sheath size, cardiac surgeons and heart teams have the opportunity to further develop alternative access strategies and to evaluate each patient as a unique entity and pursue the most suitable access. Transaortic or transapical access in addition to transcaval and transeptal modalities are to be considered when there are no arterial options.³

From the Department of Cardiovascular Surgery, Mayo Clinic, Rochester, Minn.

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Address for reprints: Kimberly A. Holst, MD, Department of Cardiovascular Surgery, Mayo Clinic, 200 First St, SW, Rochester, MN 55905 (E-mail: holst.kimberly1@mayo.edu).

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CENTRAL MESSAGE

Transcarotid access may be the preferred alternative approach in TAVR. Regardless, cardiac surgeons should remain adept in alternative access and tailor an approach to each individual patient.

The authors as well as surgeons across the country who have contributed to the progress of TAVR should be congratulated on these advancements. TC access has evolved into a safe and feasible approach when transfemoral access is not possible and many patients will benefit. Although TC access may be the preferred alternative approach for many patients undergoing TAVR, cardiac surgeons and heart teams should remain adept in transthoracic and transvenous access options and tailor the approach to each individual patient.

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