

Correction note

Heart Vessels Transplant 2025; 9: doi: 10.24969/hvt.2024.549

This is to notify correction for printed version of manuscript: Almuzainy S, Hamodat OS, Nizar S. Transcatheter versus surgical aortic valve replacement: a meta-analysis of comparative outcomes in low- and intermediate-risk patients with severe aortic stenosis. Heart Vessels Transplant 2024; 8: 509-20. doi: 10.24969/hvt.2024.519 published in December 2024 issue of Heart, Vessels and Transplantation.

Missing text on page 509 should read as following:

While TAVR is the preferred modality for high surgical risk AS patients, the question remains whether it should be incorporated as an alternative to SAVR for intermediate and low-risk AS patients as well; newly emerging trials have demonstrated that TAVR is a safe and efficacious therapeutic option with promising short-to-intermediate outcomes (3, 4).

As TAVR has become the fundamental procedure for severe AS in elderly patients, especially the subset of patients deemed to be high or intermediate-risk by the Society of Thoracic Surgeons Predicted Risk of Mortality (STS-PROM), the assessment of numerous aspects associated with its outcomes is crucial in finalizing whether or not TAVR is a viable therapeutic option for intermediate and low-risk severe symptomatic AS patients who would usually go for SAVR (5–9).

Within this framework, our meta-analysis aims to compare and contrast between TAVR and SAVR in terms of safety and efficacy, analyzing numerous cardiovascular complications, length of hospital stay as well as financial considerations to come to a definitive conclusion.

Methods

We followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines during the preparation of this systematic review to report our methodology and results.

Inclusion criteria

The following criteria were applied for inclusion in the study: (1) randomized clinical trials; (2) comparison of TAVR and SAVR; (3) the population consists of elderly patients (generally 65 years and older) with severe symptomatic aortic stenosis, ranging from low to intermediate surgical risk based on evaluations by a multidisciplinary heart team using a risk model from the Society of Thoracic Surgeons (STS) to estimate 30-day mortality risk (10).; (4) reporting of outcomes, such as all-cause mortality, stroke, prosthetic valve endocarditis, and length of hospital stay. We excluded nonrandomized studies, animal studies, non-English publications, case reports, case series, editorials, reviews and theses without original data.

Search Strategy

To identify all clinical trials comparing TAVR and SAVR in elderly patients with severe symptomatic aortic stenosis, ranging from low to intermediate surgical risk, we conducted a systematic literature search across several medical databases, including PubMed, Scopus, Ovid, CINAHL, and ProQuest, through July 2024. Our search strategy utilized specific keywords and Medical Subject Headings (MeSH) terms relevant to our study objectives. The search terms included “Transcatheter Aortic Valve Replacement,” “Transcatheter aortic valve implantation,” “Surgical Aortic valve replacement,” “Surgical aortic valve implantation,” “Cost-effectiveness,” “Health economics,” “complications,” “Stroke,” “Endocarditis,” and “Mortality.”

Selection of Studies

The screening process involved two independent reviewers and was conducted in two stages: first, the titles and abstracts of retrieved studies were assessed for relevance, followed by a detailed review of the full texts of studies that appeared potentially eligible. Any disagreements between reviewers were resolved through discussion.

Data Extraction

Three authors independently extracted data using an online data extraction form. The extracted data were categorized into the following areas: 1) Study Design and Characteristics, detailing the study type and key methodological aspects; 2) Baseline Characteristics of the Population, including demographic and clinical details such as age, sex, and comorbidities; 3) Quality Assessment, utilizing the Cochrane Risk of Bias (ROB 1) tool; and 4) Outcomes, including mortality rates at 30 days, 1 year, and 2 years, as well as the incidence of myocardial infarction (MI) and stroke, and the length of hospital stay. Clinical outcomes, including death, stroke, myocardial infarction, and endocarditis, were defined according to the Valve Academic Research Consortium-2 (VARC-2) criteria (11).

We apologize for mistake on printing stage – affected are the print hardcopy and print version of pdf online, while online html and online pdf versions are correct.

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Editor-in-Chief

Heart, Vessels and Transplantation