INPLASY PROTOCOL

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None declared.

Efficacy and Safety of Emergent Transcatheter Aortic Valve Implantation in Patients with Decompensated Aortic Stenosis

Shao, RC[1]; Li, JL[2].

Review question / Objective: According to the current guidelines for the treatment of valvular diseases, hemodynamic instability is the relative contraindication of TAVR. Most TAVR is performed selectively in patients with hemodynamic stability. However, more and more studies have shown that emergent TAVR may be feasible and effective in severe as patients with cardiogenic shock or acute decompensated heart failure. Therefore, we performed a systematic review and meta-analysis to comprehensively and quantitatively investigate the efficacy and safety of emergent TAVR compared with elective TAVR, to provide evidence for clinical treatment decision-making.
Condition being studied: Decompensated Aortic Stenosis.

INTRODUCTION

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elective TAVR, to provide evidence for clinical treatment decision-making.

Condition being studied: Decompensated Aortic Stenosis.

METHODS

Participant or population: Patients with Decompensated Aortic Stenosis.

Intervention: Emergent Transcatheter Aortic Valve Implantation.

Comparator: Elective Transcatheter Aortic Valve Implantation.

Study designs to be included: Randomized clinical trials and prospective/retrospective cohort studies.

Eligibility criteria: ①randomized clinical trials and prospective/retrospective cohort studies; ②reported Outcome indicators for both emergent TAVR and emergent TAVR；③reported the specific number or incidence of outcome indicators or displayed the survival curve.

Information sources: PubMed, Embase and The Cochrane Library.

Main outcome(s): Post-TAVI complications, in-hospital mortality and 30 days and 1 year mortality after TAVI.

Quality assessment / Risk of bias analysis: The Newcastle–Ottawa Scale (NOS) was used to assess the quality of the included observational studies.

Strategy of data synthesis: Revman 5.3 software was used for statistical analysis. The relative risk (RR) was used as the statistic of effect analysis, and the 95% CI of each effect was given. The heterogeneity of the included results was analyzed by chi square test (the test level was α = 0.1), and the heterogeneity was quantified by combining with I2. If there was no statistical heterogeneity among the results, the fixed effect model was used for meta-analysis; if there was statistical heterogeneity among the results, the sources of heterogeneity were further analyzed. After excluding the influence of obvious clinical heterogeneity, the random effect model was used for meta-analysis. Significant clinical heterogeneity was treated by subgroup analysis or sensitivity analysis, or only descriptive analysis. The level of meta analysis was set as α = 0.05.

Subgroup analysis: According to the degree of emergency, it can be divided into Urgent/emergent/elective TAVI.

Sensitivity analysis: We performed sensitivity analysis by discarding one study at a time and repeating the meta-analysis to examine the robustness of the pooled results.

Language: English.

Country(ies) involved: China, USA, UK, Canada.

Keywords: aortic stenosis, transcatheter aortic valve implantation, emergent procedure.

Contributions of each author:
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