INPLASY PROTOCOL

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None declared.

Clinical comparison of percutaneous versus surgical repair for treatment of post-infarction ventricular septal rupture: A meta-analysis

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Review question / Objective: **Post-infarction ventricular septal rupture is a rare and clinically fatal post-infarction complication with an incidence of l to 2%. Typically occurring 3 to 5 days after infarction, presentations range from an incidental murmur to circulatory collapse; Surgical repair is a traditional and effective treatment, but postoperative mortality remains high, with large residual shunts and re-rupture rates of up to 10% to 20%. At the same time, patients with PI-VSR usually have poor cardiac function and poor tolerance for surgical trauma (especially in patients with poor physical fitness). With the development of interventional techniques, minimally invasive treatment has become another option for the treatment of such patients. More importantly, there is still controversy as to which of the two surgical options has the better treatment outcome; Thus, we performed a meta-analysis of the available literature to compare the clinical outcome of percutaneous versus surgical repair for the treatment of post-infarction ventricular septal rupture.**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 14 October 2022 and was last updated on 14 October 2022 (registration number INPLASY2022100056).

INTRODUCTION

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Condition being studied: Percutaneous versus surgical repair for treatment of post-infarction ventricular septal rupture.

METHODS

Search strategy: Search terms were "ventricular septal rupture," or "ventricular septal ruptures" or "ventricular septal perforation" and "surgical repair" or "percutaneous closure surgery"."

Participant or population: The patient underwent post-infarction ventricular septal rupture.

Intervention: Surgical repair.

Comparator: Percutaneous closure surgery.

Study designs to be included: Ongoing.

Eligibility criteria: Ongoing.

Information sources: Electronic databases.

Main outcome(s): In-hospital mortality or 30-day mortality; residual shunts.

Quality assessment / Risk of bias analysis: Ongoing.

Strategy of data synthesis: Ongoing.

Subgroup analysis: Ongoing.

Sensitivity analysis: Ongoing.

Language restriction: English and Chinese.

Country(ies) involved: China.

Keywords: percutaneous; surgical repair; post-infarction ventricular septal rupture.

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