INPLASY PROTOCOL

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Corresponding author:
Yong Mao

maoy15@lzu.edu.cn

Author Affiliation:
Lanzhou University

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Review Stage at time of this submission: **Preliminary searches.**

Conflicts of interest:
None declared.

Percutaneous Closure versus Surgical Repair for Ruptured Sinus of Valsalva Aneurysm: A Systematic Review and Meta-Analysis

Mao, Y[1]; Wu, XY[2]; Wang, CT[3]; Li, YN[4]; Guan, XQ[5]; Zhang, XP[6].

Review question / Objective: **The past decade has witnessed considerable improvement in implantation techniques for percutaneous closure of ruptured sinus of valsalva aneurysm. This meta-analysis was undertaken to compare the efficiency and safety of traditional surgery and percutaneous closure of ruptured sinus of Valsalva aneurysm.**
Rationale: **Sinus of Valsalva aneurysm is a rare anomaly and most often caused by a congenital deficiency of muscular and elastic tissue in the aortic wall of the sinus of Valsalva or acquired after periaortic inflammation, atherosclerosis, trauma, and aortic dissection. It may also occur in patients after corrective surgery for congenital heart diseases**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 25 November 2022 and was last updated on 25 November 2022 (registration number INPLASY2022110131).

INTRODUCTION

Review question / Objective: **The past decade has witnessed considerable improvement in implantation techniques for percutaneous closure of ruptured sinus of valsalva aneurysm. This meta-analysis was undertaken to compare the efficiency and safety of traditional surgery and percutaneous closure of ruptured sinus of Valsalva aneurysm.**

Rationale: **Sinus of Valsalva aneurysm is a rare anomaly and most often caused by a**

congenital deficiency of muscular and elastic tissue in the aortic wall of the sinus of Valsalva or acquired after periaortic inflammation, atherosclerosis, trauma, and aortic dissection. It may also occur in patients after corrective surgery for congenital heart diseases.

Condition being studied: A meta-analysis utilizing PubMed, Embase, Web of Science, Cochrane Library, CNKI, WanFang Data, and VIP was performed on relevantstudies.

METHODS

Participant or population: Patients diagnosed with aortic sinus aneurysm rupture by ultrasound or aortogram.

Intervention: Percutaneous closure.

Comparator: Surgerical repair.

Study designs to be included: Search all related research except case report and review.

Eligibility criteria: Ongoing.

Information sources: A meta-analysis utilizing PubMed, Embase, Web of Science, Cochrane Library, CNKI, WanFang Data, and VIP was performed on relevantstudies.

Main outcome(s): In progress.

Quality assessment / Risk of bias analysis: In progress.

Strategy of data synthesis: In progress.

Subgroup analysis: In progress.

Sensitivity analysis: In progress.

Language restriction: There were no restrictions set on the language or date of the literaturesearch.

Country(ies) involved: China.

Keywords: percutaneous closure, surgical repair, Ruptured Sinus of Valsalva Aneurysm, meta-analysis.

Contributions of each author:
Author 1 - Yong Mao.
Author 2 - Xiangyang Wu.
Author 3 - Cingting Wang.
Author 4 - Yongnan Li.
Author 5 - Xinqiang Guan.
Author 6 - Xiaopeng Zhang.