

# INPLASY

## Endovascular repair versus best medical treatment for uncomplicated acute type B acute aorta dissection: a meta-analysis

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### ADMINISTRATIVE INFORMATION

**Support** - None.

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

**Conflicts of interest** - None declared.

**INPLASY registration number:** INPLASY202380038

**Amendments** - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 09 August 2023 and was last updated on 09 August 2023.

### INTRODUCTION

**Review question / Objective** We aim to conduct a meta-analysis to compare the thoracic endovascular aorta repair versus best medical treatment as the primary treatment strategy for acute uncomplicated type B aorta dissection.

**Condition being studied** Both thoracic endovascular aorta repair and best medical treatment have been used for treatment of acute uncomplicated type B aorta dissection. However, the relative efficacy is not clear.

### METHODS

**Search strategy** (((endovascular repair) OR (TEVAR)) AND (medical)) AND (aortic dissection) AND (type B).

**Participant or population** Patients with acute uncomplicated type B aorta dissection.

**Intervention** Thoracic endovascular aorta repair.

**Comparator** Best medical treatment.

**Study designs to be included** Comparative studies.

**Eligibility criteria** Patients meeting the following criteria were excluded: were younger than 18 years; had aortic dissection secondary to trauma, iatrogenic injury, or intramural hematoma; or had Marfan syndrome or Ehlers–Danlos syndrome.

**Information sources** PubMed, Web of science, and Wanfang databases.

**Main outcome(s)** False lumen thrombosis rate.

**Quality assessment / Risk of bias analysis** The Cochrane risk-of-bias tool was used to establish the quality of randomized controlled trials. Observational study quality was assessed using the Newcastle–Ottawa scale.

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**Strategy of data synthesis** This meta-analysis and associated analyses were conducted using RevMan v5.3 and Stata v12.0. For dichotomous variables, pooled odds ratios (ORs) with 95% confidence intervals (CIs) were calculated, while continuous variables were compared using mean differences (MD) values with 95% CIs. The I<sup>2</sup> statistic and Q test were used to assess heterogeneity, with an I<sup>2</sup> > 50% being considered indicative of significant heterogeneity. When heterogeneity was significant, random-effects models were used, whereas fixed-effect models were otherwise used. Sensitivity analyses were conducted via a “leave one out” approach in an effort to detect sources of heterogeneity. Publication bias was analyzed using Egger’s test, with P < 0.05 as the significance threshold.

**Subgroup analysis** None.

**Sensitivity analysis** Ye.

**Country(ies) involved** China.

**Keywords** Endovascular repair; Medical; Type B; Aorta dissection.

**Contributions of each author**

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