

INPLASY PROTOCOL

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Corresponding author:
Chen Huiyun

chen_heart@163.com

Author Affiliation:
China Medical University

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Conflicts of interest:
None.

Evaluation of Left ventricular myocardial mechanics in subjects with a bicuspid aortic valve without significant valvular dysfunction in adults: A Systematic Review and Meta-analysis

Huiyun, C¹; Huili, L²; Yi, H³; Hongze, Z⁴; Tao, W⁵; Xin, C⁶.

Review question / Objective: Studies to date are controversial concerning the left ventricular myocardial deformation properties in patients with isolated BAV disease. Whether a remodeling process of left ventricle (LV) is also independently present in BAV patients is still debated. P: Adults; I: Bicuspid aortic valve; C: Tricuspid aortic valve; O: Left ventricular myocardial mechanics; S: Cohort study.

Condition being studied: Studies to date are controversial concerning the left ventricular myocardial deformation properties in patients with isolated BAV disease. Whether a remodeling process of left ventricle (LV) is also independently present in BAV patients is still debated.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 14 May 2020 and was last updated on 14 May 2020 (registration number INPLASY202050059).

INTRODUCTION

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properties in patients with isolated BAV disease. Whether a remodeling process of left ventricle (LV) is also independently present in BAV patients is still debated. P: Adults; I: Bicuspid aortic valve; C: Tricuspid

aortic valve; O: Left ventricular myocardial mechanics; S: Cohort study.

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METHODS

Participant or population: Adults (≥ 18 years old).

Intervention: Bicuspid aortic valve.

Comparator: Tricuspid aortic valve.

Study designs to be included: Cohort study.

Eligibility criteria: We included cohort studies that recruited isolated BAS patients (age ≥ 18 years).

Information sources: We searched for articles written in English up to February 17, 2020.

Main outcome(s): GLS; GRS; GCS; LAVI; E/e'; LVMI; LVEF.

Quality assessment / Risk of bias analysis: the Newcastle-Ottawa Scale (NOS).

Strategy of data synthesis: Mean difference (MD) or Standard mean difference (SMD).

Subgroup analysis: None.

Sensibility analysis: None.

Country(ies) involved: China.

Keywords: bicuspid aortic valve; BAV; left ventricular dysfunction; myocardial mechanics.

Contributions of each author:

Author 1 - Chen Huiyun - Investigation, Formal analysis, Writing- Original draft.

Author 2 - Liang Huili - Investigation.

Author 3 - Huang Yi - Methodology.

Author 4 - Zhao Hongze - Writing-review & editing.

Author 5 - Wang Tao - Writing-review & editing.

Author 6 - Chen Xin - Conceptualization, Methodology, Writing - review & editing.