INPLASY

Intravascular imaging or physiology-guided coronary revascularization in patients with multivessel coronary disease

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ADMINISTRATIVE INFORMATION

Support - Taizhou Municipal Hospital.

Review Stage at time of this submission - Preliminary searches.

Conflicts of interest - None declared.

INPLASY registration number: INPLASY202420092

Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 21 February 2024 and was last updated on 21 February 2024.

INTRODUCTION

Review question / Objective To compare intravascular imaging and physiology-guided coronary revascularization in patients with multivessel coronary disease.

Condition being studied In patients with multivessel coronary disease, the best strategy to guide coronary revascularization was unclear.

METHODS

Participant or population Patients with multivessel coronary lesions.

Intervention Intravascular imaging or physiology-guided coronary revascularization.

Comparator Angiographically guided coronary intervention or coronary artery bypass grafting.

Study designs to be included Randomized controlled trials.

Eligibility criteria 1) Patients: patients with multivessel coronary lesions; 2) Intervention: intravascular imaging or physiology guided coronary revascularization; 3) Control: angiographically guided coronary intervention or coronary artery bypass grafting; 4) Outcome: MACE (a composite endpoint of death, MI, and TLR; 5) Study design: RCTs.

Information sources PubMed, Embase, Cochrane Central Register of Controlled Trials, ClinicalTrials.gov, and grey literature databases were searched.

Main outcome(s) Primary outcome: MACE (a composite endpoint of death, MI, and TLR).

Additional outcome(s) Secondary outcomes: the components of the primary outcome, cardiac death, TVR, stent thrombosis, and stroke.

Quality assessment / Risk of bias analysis ROB2 for individually randomized, parallel-group trials is applied to included studies. GRADE assessment was used to evaluate the quality of outcomes.

Strategy of data synthesis All analyses for the pairwise meta-analysis were performed using STATA software and R software was used for network network meta-analysis. RRs value of each outcome and the corresponding 95% CI was calculated.

Subgroup analysis Subgroup analysis was performed based on intravascular imaging assessment or coronary physiology assessment. In addition, we also conducted subgroup analysis according to patients and trial characteristics.

Sensitivity analysis Leave-one-out meta-analysis was applied to the sensitivity analysis.

Language restriction No language restriction.

Country(ies) involved China.

Keywords Multivessel coronary disease; Intravascular imaging; Coronary physiology; percutaneous coronary intervention.

Contributions of each author

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