

Supplementary Material 1. Comprehensive Search Strategy

This supplement provides a comprehensive overview of the search strategy implemented in our systematic review and meta-analysis. The strategy was designed to capture a wide range of studies pertinent to our research objectives, focusing specifically on Ischemic Heart Disease, Coronary Artery Disease, and Coronary Heart Disease, along with their treatments and outcomes.

The search involved a detailed combination of key terms and phrases, including "Ischemic Heart Disease" "Coronary Artery Disease" OR "Coronary Heart Disease" in conjunction with "Percutaneous Coronary Intervention" OR "PCI," and "Coronary Artery Bypass Grafting" OR "CABG." To ensure the inclusion of high-quality research, we refined our search to focus on studies categorized as "Comparative Study," "Comparative Effectiveness Research," or "Randomized Controlled Trial." Additionally, terms such as "Clinical Outcomes," "Survival Rate," "Complications," and "Quality of Life" were included to cover a broad spectrum of patient-centered outcomes. Other relevant terms encompassed "Myocardial Ischemia," "Revascularization," "Cardiac Revascularization," "Angioplasty, Balloon, Coronary," "Stents," and "Coronary Artery Bypass."

To enhance the precision of our search, we employed major subject headings, including "Ischemic Heart Disease [Majr]," "Coronary Artery Disease [Majr]," "Coronary Heart Disease [Majr]," "Percutaneous Coronary Intervention [Majr]," and "Coronary Artery Bypass [Majr]." This approach was instrumental in ensuring the inclusion of highly relevant and specific studies in our analysis. The search, conducted across various databases, yielded a total of 32 studies involving 1,039 participants, all aligning with our specified search terms.

We further refined our methodology by reviewing the reference lists of the included studies in our systematic review and meta-analysis. This step was crucial for identifying additional relevant studies that might have been missed in the initial database searches. This thorough approach not only enhanced the breadth of our literature review but also ensured a more comprehensive understanding of the subject matter.

In summary, this supplement elaborates on the extensive and detailed search strategy utilized in our study. It underscores our commitment to a rigorous and comprehensive review of the literature, ensuring that our systematic review and meta-analysis are grounded in a robust and inclusive body of research on Ischemic Heart Disease, its treatments, and patient outcomes.

Highlights

- CABG outperforms PCI in reducing the need for repeat revascularization, showcasing its superior effectiveness as the primary treatment goal in our study.
- CABG shows a more favorable outcome in managing myocardial infarction compared to PCI, indicating its higher efficacy in this aspect of IHD treatment.
- PCI demonstrates a significant advantage over CABG in lowering the risk of stroke in patients, highlighting its role in specific clinical scenarios.
- Overall, CABG surpasses PCI in enhancing patient outcomes in IHD. Continuous research and further studies are essential to establish evidence-based guidelines that consider patient-specific factors and treatment adherence.
- CABG and PCI are integral to the management of IHD, with PCI offering a minimally invasive option and CABG providing more long-term durability.