

Percutaneous coronary intervention in patients with a history of coronary artery bypass grafting – “where do we stand?”

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Introduction: Patients with a history of coronary artery bypass grafting (CABG) are at high risk for recurrent ischemia due to graft failure or disease progression in native coronary arteries. Graft failure can be classified as early or late. Early graft failure is often asymptomatic, resulting from factors like poor native vessel run-off, competitive flow with the native coronary artery, or anastomotic technical issues. Late graft failure, on the other hand, results from the development of de novo atherosclerosis in the grafts over time. Percutaneous coronary intervention (PCI) has become the preferred treatment for recurrent ischemia in patients post-CABG. PCI of native coronary arteries should generally be prioritized if technically feasible, as it is associated with better long-term outcomes compared to PCI of grafts. However, the choice between treating native vessels versus bypass grafts remains a clinical challenge, given the complexity of the anatomy and the patient’s overall health status.¹⁻³

Results: We analyzed 128 post-CABG patients treated in institution between 2019 and 2024. Of these, 53 PCI procedures were performed on native coronary arteries (41%), while 9 procedures targeted saphenous vein grafts (SVG, 7%). In the group with PCI of native vessels, the failure rate was 17% (9/53), while the failure rate for PCI of SVGs was 11% (1/9).

Conclusion: PCI remains a cornerstone of treatment for ischemia in post-CABG patients. While PCI of native vessels should generally be the preferred strategy, it carries a higher risk of failure, often due to complex coronary anatomy and patient comorbidities. PCI of SVGs, when performed with modern techniques and appropriate adjunctive therapies, offers a comparable success rate and lower failure rate, making it an important treatment option for patients with recurrent ischemia. The evolving use of newer stents, pharmacotherapy, and embolic protection strategies has further improved the outcomes in these challenging cases.

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LITERATURE

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