

[Planned Simultaneous Beating-heart Totally Endoscopic Coronary Artery Bypass \(TECAB\) and Percutaneous Intervention in a Single Operative Setting](#)

Srivastava, Sudhir; Gadasalli, Suresh; Tijerina, Orlando; Barrera, Reyna; Quismundo, Shaune; Srivastava, Vishwa

Innovations: Technology and Techniques in Cardiothoracic and Vascular Surgery. 1(5):239-242, Fall 2006.

doi: 10.1097/01.IMI.0000235470.96825.c9

[+ My Collections](#)

PDF (122 KB)

[Hide Abstract](#)

Abstract:

Background: Staged hybrid revascularization integrated with minimally invasive coronary artery bypass grafting (CABG) and arrested heart totally endoscopic CABG has been reported. We report the first case of planned simultaneous hybrid coronary revascularization, integrating beating-heart TECAB, and percutaneous intervention (PCI) in the same operative setting.

Methods: A 73-year-old woman with symptoms of angina and a history of diabetes was found to have 2-vessel coronary artery disease involving the left anterior descending (LAD) and the right coronary artery (RCA). Left internal thoracic artery (LITA) to the LAD grafting was done on a beating heart in a totally endoscopic manner using the da Vinci robotic system through 4 ports. Immediately after LITA to LAD TECAB, percutaneous angioplasty and stent placement was done through the right femoral artery using the OEC 9800 mobile C-arm in the operating room.

Results: There was no stenosis noted in the RCA after the intervention. LITA angiography showed a completely patent anastomosis. The total operative time for both procedures was 165 minutes. Occlusion and anastomotic times were 14 and 8 minutes, respectively. Total PCI and fluoroscopy times were 10 and 3 minutes, respectively. The patient received clopidogrel (Plavix) and aspirin in the immediate postoperative period and was discharged home on the second postoperative day.

Conclusion: This planned hybrid approach involving a beating-heart single-vessel TECAB and simultaneous angioplasty-stent in a single operative setting achieved complete coronary artery revascularization in a less invasive way.

(C) 2006 Lippincott Williams & Wilkins, Inc.