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Editorial Comment / Editoryal Yorum

Minimally invasive coronary revascularization

Minimal invaziv koroner revaskülarizasyon

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In this issue of the Turkish Journal of Thoracic and Cardiovascular Surgery, Dr. Nymbala presents an excellent technical video on his version of the MICS CABG procedure.[1] This technique has been first popularized by Joe McGinn and Marc Ruel.[2]

Dr. Nymbala's technique can be offered to 70% of all patients presenting for CABG. Using a sternal sparing approach and through a 5 to 7-cm mini-thoracotomy, he demonstrates in detail the technical aspects of harvesting both internal mammary arteries for multi-arterial grafting on the beating heart using a stabilizer and positioning device.

While the single vessel MIDCAB procedure using a left internal mammary artery (LIMA) to the left anterior descending coronary artery (LAD) has gained some acceptance worldwide, sternal sparing approaches for multi-vessel grafting with two internal mammary artery grafts or combined LIMA and radial artery graft have yet to become widely adopted. Indeed, the majority of multi-vessel sternal-sparing MICS CABG procedures are performed using a single arterial (and multiple vein) grafts. The benefits of multi-arterial grafting in coronary surgery have been clearly established, and one of the major impediments to using bilateral internal mammary artery grafts is the risk of sternal wound infection. Eliminating the risk of sternal wound infection in patients at high risk for this potentially devastating complication by preserving the sternum is the best way to ensure the routine utilization of bilateral internal mammary artery grafts during CABG.

Off pump coronary surgery skills are essential to performing such a procedure. In addition intraoperative hemodynamic monitoring is also an important aspect of the described technique, with strict and frequent communication between the surgical and anesthesia teams. Probably the most important aspect for the described technique is the reproducibility of the entire procedure. Dr. Nymbala has described a minimally invasive coronary revascularization method with the use of standard instruments and a set up that can easily be reproduced in a dedicated center with skilled surgeons.

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