

## 橈骨動脈グラフトの開存率は伏在静脈と同等である

冠動脈バイパス術後1年間の開存率は伏在静脈グラフトと橈骨動脈グラフトとで同等である

Saphenous vein and radial artery have same graft patency one year after coronary artery bypass graft surgery

伏在静脈グラフトと橈骨動脈グラフトを比較したスタディの結果、1年後のグラフト開存率は同等であったとの研究結果が第59回American College of Cardiologyで発表された。このスタディでは待機的冠動脈バイパスグラフト術（CABG）を施行される患者733人を橈骨動脈または伏在静脈グラフト（366人を橈骨動脈グラフト群、367人を伏在静脈グラフト群）を用いる群に無作為に割り付けた。1年後にグラフト造影を行った結果これらの2つのグラフト群間で開存率に差はなかった。手術の合併症、心筋梗塞、脳卒中、再血行再建術、および死亡からなる二次エンドポイントに有意差はなかった。可能性のある合併症を明らかにするため、研究者らは術後1週にもグラフト造影を行った。その結果、2つのグラフトの開存率はそれぞれ橈骨動脈99%および伏在静脈97%であり、同等の成績であった。しかし、橈骨動脈グラフトの方が疾患の早期徴候が多く認められた（びまん性狭窄 [string sign] は橈骨動脈グラフトの8%において認められたのに対し伏在静脈においては1%であった）。

### Full Text

A study comparing saphenous vein grafts and radial artery grafts found that they both resulted in equal graft opening at one year, according to research presented at the American College of Cardiology's 59th annual scientific session.

Conducted at 11 Veterans Affairs medical centers between 2003 and 2008, the prospective study randomized patients undergoing elective coronary artery bypass graft surgery (CABG) to receive either the radial artery or the saphenous vein graft. In the final analysis, 733 patients were included (366 with the radial artery, 367 with the saphenous vein).

The study found that at one year, graft angiography revealed no difference in graft opening between the two conduits, with the radial artery leading to 89 percent, and the saphenous vein leading to 89 percent.

No significant differences were noted for the secondary endpoints either, which included surgical complications, myocardial infarction, stroke, repeated revascularization, and death. In order to determine when potential complications would occur, the researchers also performed graft angiography at one week after surgery, for which they found the two grafts also performed equally, at 99 percent for the radial artery and 97 percent for the saphenous vein.

"In the United States alone, there were 165,000 CABG procedures performed in 2008, according to the Society of Thoracic Surgeons database, and over 10,000 of these cases used the radial artery graft," said Steven Goldman, M.D., Chief of Cardiology at the Tucson VA, Southern Arizona VA Health Care System, and the study's lead researcher. "That tells us that surgeons today are using radial artery grafts, but the answer to whether or not they are better than vein grafts is still unclear."

According to Goldman, many surgeons believe the radial artery is superior to the saphenous vein, because arterial grafts develop less disease than vein grafts and are better able to withstand aortic pressure. In addition, the left internal mammary artery is commonly used in CABG procedures and has shown positive results in published studies. However, Goldman said that a procedure using the left internal mammary artery is actually very different - and can be much more complicated - than a procedure using the radial artery, because the former requires reattaching only one end of the artery, while the latter requires total transplantation.

"While the study findings raise new questions from the surgical perspective regarding graft durability in the short term, we need to see the data from our study of long-term graft patency - which analyzes 5-year outcomes - before making substantive judgments on the performance of the radial artery graft," Goldman said.

Only one other study has thus far pitted the radial artery against the saphenous vein, but its outcomes were different than the current trial, finding that the radial artery had significantly more graft patency than the saphenous vein at one year. That study's 5-year findings have yet to be published.

The study was funded by The Department of Veterans Affairs Cooperative Studies program.

## ACC2010特集

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