

Collaborative Scientific Statement Points to Benefits of ‘Radial-First’ Interventional Strategy

Performing interventional cardiology procedures through the radial artery in the patient’s wrist, rather than the femoral artery in the groin, can improve patient outcomes, according to Mauricio G. Cohen, M.D., professor of medicine and director of the Cardiac Catheterization Laboratory at the University of Miami Miller School of Medicine.



Dr. Mauricio Cohen performs a transradial artery access procedure in the Elaine and Sydney Sussman Cardiac Catheterization Lab at UHealth Tower.

“Transradial artery access (TRA) is associated with lower bleeding, fewer vascular complications, and improved mortality

outcomes than transfemoral artery access, especially in high-risk patients with acute coronary syndromes who require immediate treatment,” said Dr. Cohen, who is also chair of the American Heart Association’s Acute Care Committee. “Today, more than 70 percent of Miller School cardiac catheterization procedures involve access through the radial artery – almost twice the national average. We treat a couple thousand patients every year and have seen a clear benefit in terms of lower bleeding, fewer vascular complications, and improved patient satisfaction.”

Dr. Cohen was one of 10 U.S. medical and nursing professionals who co-authored “An Update on Radial Artery Access and Best Practices for Transradial Coronary Angiography and Intervention in Acute Coronary Syndrome: A Scientific Statement From the American Heart Association,” [published](#) in a recent issue of *Circulation: Cardiovascular Interventions*.

Dr. Cohen, who first began using TRA in 2003, introduced the systematic use of transradial access to the Cardiac Catheterization Laboratory when he was recruited to the Miller School in 2009. Since then, he has trained dozens of U.S. and international fellows in radial access techniques. In 2017, he partnered with other interventional cardiologists to launch #radialfirst, which shares TRA information and experiences on social media.

Acknowledging that the U.S. lags behind Europe and Asia in the adoption of TRA procedures, the *Circulation* statement noted that a growing body of evidence supports adoption of transradial artery access to improve outcomes and care quality, while reducing cost.

“The purpose of this scientific statement is to propose and support a ‘radial-first’ strategy in the United States for patients with acute coronary syndromes,” said the co-authors.

The *Circulation* statement also includes best practice recommendations for TRA diagnostic and interventional procedures to obtain the most positive outcomes – including the importance of operator training and experience, and a center’s patient volume. The co-authors noted that while a radial-first approach is strongly recommended in all patients, a graduated level of center and operator experience is recommended before TRA is pursued in patients with ACS.

Dr. Cohen said attaining proficiency in TRA catheterization and intervention – especially for a seasoned practitioner experienced in transfemoral procedures – requires time, effort, and humility. The learning curve is approximately 100 cases.

“However, the United States has seen a dramatic increase in recent years in cardiologists willing to make the leap to transradial artery cardiac catheterization procedures,” he added.