UHealth, Miller School Make Major Contributions to Interventional Cardiology Meeting

The Society for Cardiovascular Angiography & Interventions (SCAI) recently held its annual meeting in Phoenix, Ariz., and interventional cardiologists with UHealth – University of Miami Health System and the Miami Miller School of Medicine played significant roles.

Yiannis Chatzizisis, M.D., Ph.D., was invited to chair SCAI's Bifurcation Club and made several presentations at the conference.

In a major conference highlight, Yiannis S. Chatzizisis, M.D., Ph.D., professor and chief of cardiovascular medicine, was asked to chair SCAI’s Bifurcation Club. Bifurcation is when major heart vessels divide into smaller ones. For interventional cardiologists, this complex anatomy can pose therapeutic challenges, particularly during stent procedures.

“The SCAI Bifurcation Club is a group of experts in the field from all over the world,” said Dr. Chatzizisis, who helped found the committee. “We promote and advance the field of stent interventions in bifurcations in the heart arteries.”

This honor is the most recent example of Dr. Chatzizisis’
efforts to study bifurcation and improve cardiovascular care. In 2021, he received the Bifurcation Person of the Year award from the European Bifurcation Club to recognize his international leadership.

Refinements in PCI Procedures

In addition to being elevated to chair, Dr. Chatzizisis made several presentations during the conference. One panel covered emerging refinements in percutaneous coronary intervention (PCI) procedures, which include angioplasties and stents. Speakers discussed virtual stenting, robotics, artificial intelligence and other techniques. In another presentation, Dr. Chatzizisis and others, presenting to a standing room-only audience, shared how AI and computational simulations could help improve bifurcation PCI.

Carlos E. Alfonso, M.D.

In another meeting highlight, a team of cardiologists released results from the FLASH study, which tested a device, called FlowTriever, that helps remove blood clots (pulmonary embolism) from the lungs.

“The FLASH study was a multisite study that looked at 800 patients with high-risk pulmonary embolism who were treated with the FlowTriever device,” said Carlos E. Alfonso, M.D., professor of clinical medicine and director of Advanced Coronary and CTO Interventions at UHealth Tower. Dr. Alfonso helped lead the University of Miami portion of the trial, enrolling patients at UHealth Tower. “The study demonstrates that the device is safe and feasible to treat large, life-
threatening pulmonary embolism.”

**Mechanical Extraction of Acute Clots**

Traditionally, physicians have treated life-threatening pulmonary embolism with drugs, including blood thinners and clot-busting thrombolytic agents such as tPA. Intermediate risk patients have been treated with long-term anticoagulation. FlowTriever uses a catheter to reach acute clots and mechanically remove them. One of the major concerns about FlowTriever, or any other technique that physically eliminates blood clots, is safety.

“The counter argument to catheter therapies is that they are invasive procedures and there are potential complications related to the procedure itself,” said Daniel Gorman, D.O., assistant professor of clinical medicine and medical director of the Pulmonary Embolism Response Team (PERT), who helped support the study. “If you're comparing it to a medication, then it needs to have a really safe profile, and this device was both incredibly safe and incredibly effective.”

The six-month FLASH results showed patients experienced low mortality, lower rates of long-term complications such as chronic thromboembolic pulmonary hypertension, fewer symptoms and improved quality of life. These positive results could help introduce a new approach to treating thrombolytic embolism, giving cardiologists better opportunities to help their patients.

“The low mortality rate was encouraging, as this was a high-risk patient population,” said Dr. Alfonso. “This data, in combination with future studies, may change the way we treat pulmonary embolism and support a more aggressive upfront
strategy with early catheter-directed thrombectomy (clot extraction) to help improve long-term outcomes and decrease complications.”

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