

New hope for hard-to-treat heart patients with balloon angioplasty

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In some heart patients, coronary arteries become so clogged that they are difficult or impossible to reopen with conventional balloon angioplasties.

Dr. John Lopez of Loyola University Health System is using a new angioplasty technique to reopen these tough <u>blockages</u> by going through the "back door."

The technique, called retrograde recanalization, was developed in Japan and is beginning to catch on in centers with advanced expertise in <u>cardiac catheterization</u>. It is a complex procedure that requires new catheters and tools that can pass through <u>arteries</u> less than 1 millimeter wide.

Lopez recently used the technique on Heliodoro Galvan, 55, of Oak Forest, Ill. Before the procedure, Galvan's right <u>coronary artery</u> was completely blocked, causing fatigue and difficulty breathing.

In a conventional angioplasty, an interventional cardiologist inserts a catheter through an artery in the groin and guides it to the front end of the blockage. The catheter is passed through the blockage and a balloon on the tip of the catheter is inflated to open the artery. The cardiologist typically deploys a stent, or a wire mesh tube, to keep the artery open.

But in Galvan's case, the front of the blockage was clogged with bonehard deposits. So Lopez took a different route. He approached the blockage from the back end, which was softer and easier to break



through with a <u>catheter</u>.

To reach this back end, Lopez took an alternative route that passed through narrow "collateral" arteries that are 0.5 millimeter to 1 millimeter wide. (These collateral arteries sprouted up after the right coronary artery closed up.)

Before undergoing the procedure, Galvan experienced unusual fatigue. He nearly fainted a few times at his physically demanding job. Spending a day with his grandchildren left him exhausted. And he couldn't run more than half the length of a football field without becoming winded.

Galvan underwent the procedure Aug. 24 and went home the next day. Today, he has much more energy and can run easily for 5 or 10 minutes without stopping. He walks and jogs three or four miles every other day. He also has improved his diet and lost about 20 pounds.

"I feel a lot better," he said. "Finally, I can go for a run."

Lopez is director of interventional cardiology research and a professor in the cardiology division of the Department of Medicine of Loyola University Chicago Stritch School of Medicine.

Provided by Loyola University Health System

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