

Cath Lab Digest

A product, news & clinical update for the cardiac catheterization laboratory specialist



IMAGING CORNER

Using Imaging to Improve Stent Visualization in Complex Bifurcation Disease

A 53-year-old male with chest pain and shortness of breath was diagnosed with complex bifurcation disease. Coronary angiography revealed a 99% bifurcation stenosis of the distal right coronary artery (RCA), with significant disease extending into the right posterior descending artery (RPDA) and right posterolateral artery (RPL) (Figure 1). Intravascular ultrasound (IVUS) revealed a 4.0 mm distal RCA and RPL, and a 3.0 mm proximal RPDA. Using the double kissing crush (DK crush) technique, .014-inch coronary wires were placed in both vessels. A 3.0 mm x 15 mm drug-eluting stent was placed in the RPDA, with 1-2 mm protrusion into the distal RCA.

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In This Issue

Shared Decision-Making for the Cath Lab

Morton J. Kern, MD, et al

There are several definitions of shared decision-making (SDM), but as I understand it, SDM is an information exchange between the physician and the patient, usually with the family, discussing the underlying problem (eg, aortic stenosis), and current clinical status, followed by recommendations for treatment options (medicine, surgery, transcatheter aortic valve replacement [TAVR], etc.). In some cases, a heart team may be convened to get the best consensus for this patient. I asked my colleagues their thoughts on the SDM for our cardiology patients.

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Selected Abstracts From *The Journal of Invasive Cardiology*

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CASE REPORT

Advanced Radial Access Techniques for Complex Coronary Interventions in Challenging Anatomies

Ahmed Hassaan Qavi, MD; Prasanna M. Sengodan, MD

The American College of Cardiology/American Heart Association guidelines recommend radial artery access as a Class I indication for most percutaneous coronary interventions (PCIs).¹ The Society for Cardiovascular Angiography and Interventions also endorses the radial approach as the standard of care for coronary angiography and intervention when feasible.² Radial access is critically important in PCI, as it significantly reduces bleeding complications and vascular site complications compared to femoral access.



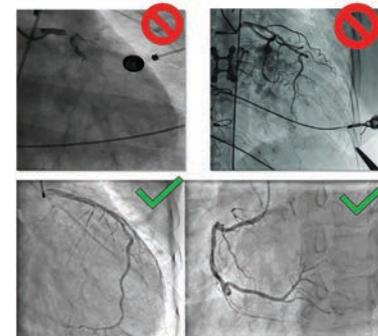
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QUALITY IMPROVEMENT

Improving Cardiac Imaging Quality at the Long Beach VA Cardiac Cath Lab: Results of a Nurse-Driven QI Project

Autumn Baldwin, BSN, RN, RCIS; Miles Mesina, BSN, RN

At the Long Beach VA Cardiac Catheterization Lab, we recently faced a critical challenge: our coronary angiography imaging quality was not meeting the high standards necessary for optimal patient care (and for useful images in the CathWorks FFRangio system). Through an extensive interdisciplinary discussion involving radiologic technologists, nurses, and other healthcare professionals, we identified that the primary issue affecting our imaging quality was the presence of artifacts producing suboptimal results. We know that high-quality images are crucial for making correct clinical decisions (Table). When these images are degraded or obscured by artifacts, they can be uninterpretable or confusing.



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Using Imaging to Improve Stent Visualization in Complex Bifurcation Disease

Images/courtesy Heart Center of Nevada

A balloon was inflated in the distal RCA, crushing the stent's proximal portion. Following balloon inflation, a 4.0 mm x 23 mm drug-eluting stent was deployed in the distal RCA extending into the RPL branch, followed by a second inflation (Figure 2). Stent visualization (Artis icono floor CLEARstent technology from Siemens Healthineers) clearly articulated the stent borders (Figure 3). Proximal optimization of the distal RCA stent was performed with a 4.0 noncompliant (NC) balloon. The final angiogram showed good angiographic result, with thrombolysis in myocardial infarction (TIMI)-3 flow in all vessels (Figure 4). ■

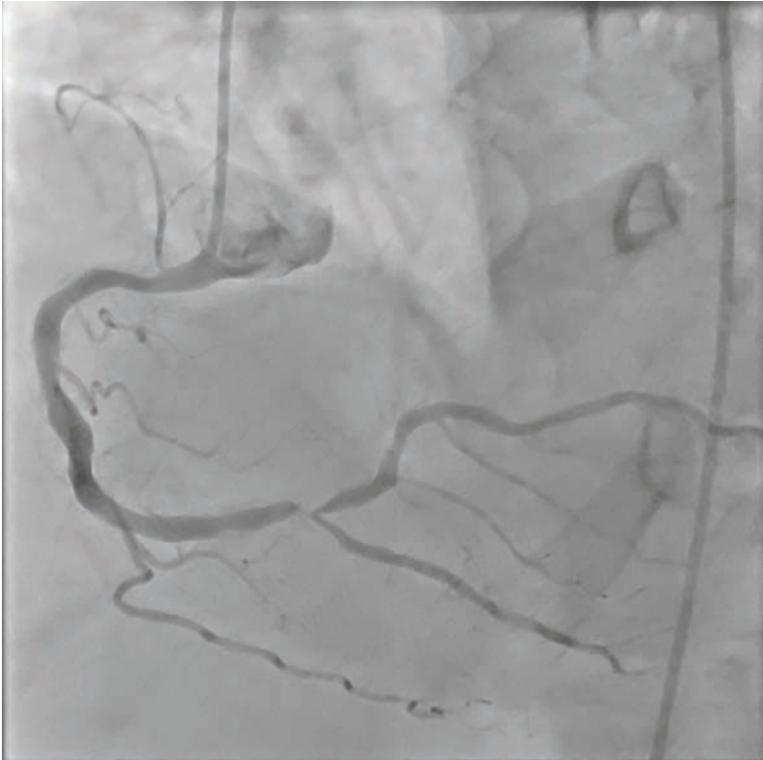


Figure 1. Right coronary artery bifurcation lesion pre-balloon and stent (left anterior oblique cranial view).



Figure 2. Kissing balloons in bifurcation lesion.

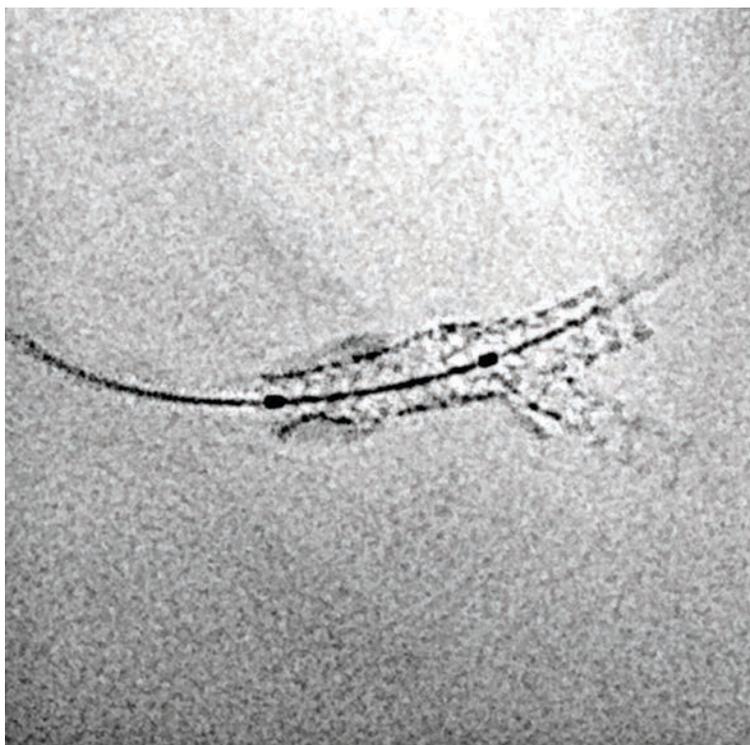


Figure 3. ClearStent use prior to proximal stent ballooning.

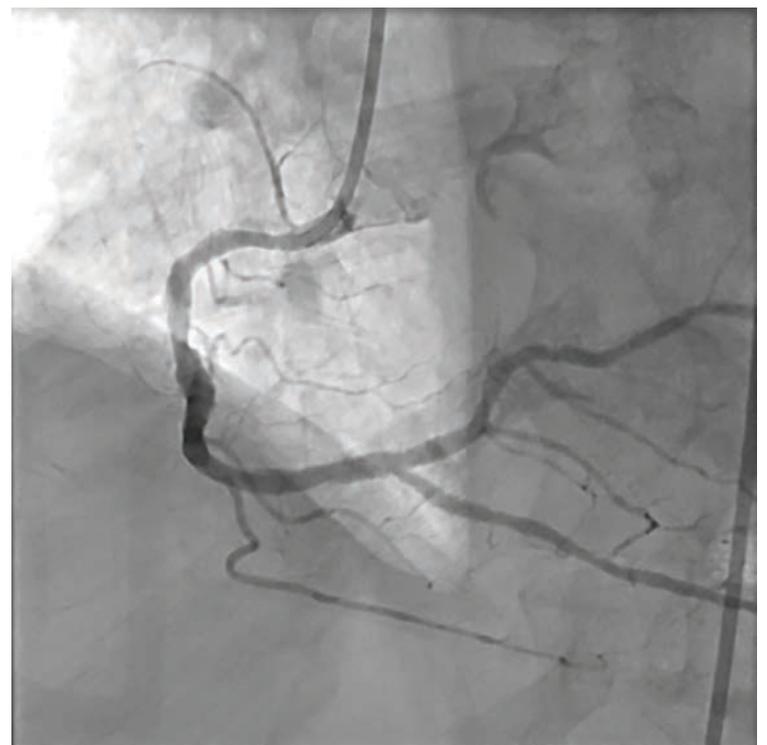


Figure 4. Final angiogram with TIMI-3 flow in all vessels.