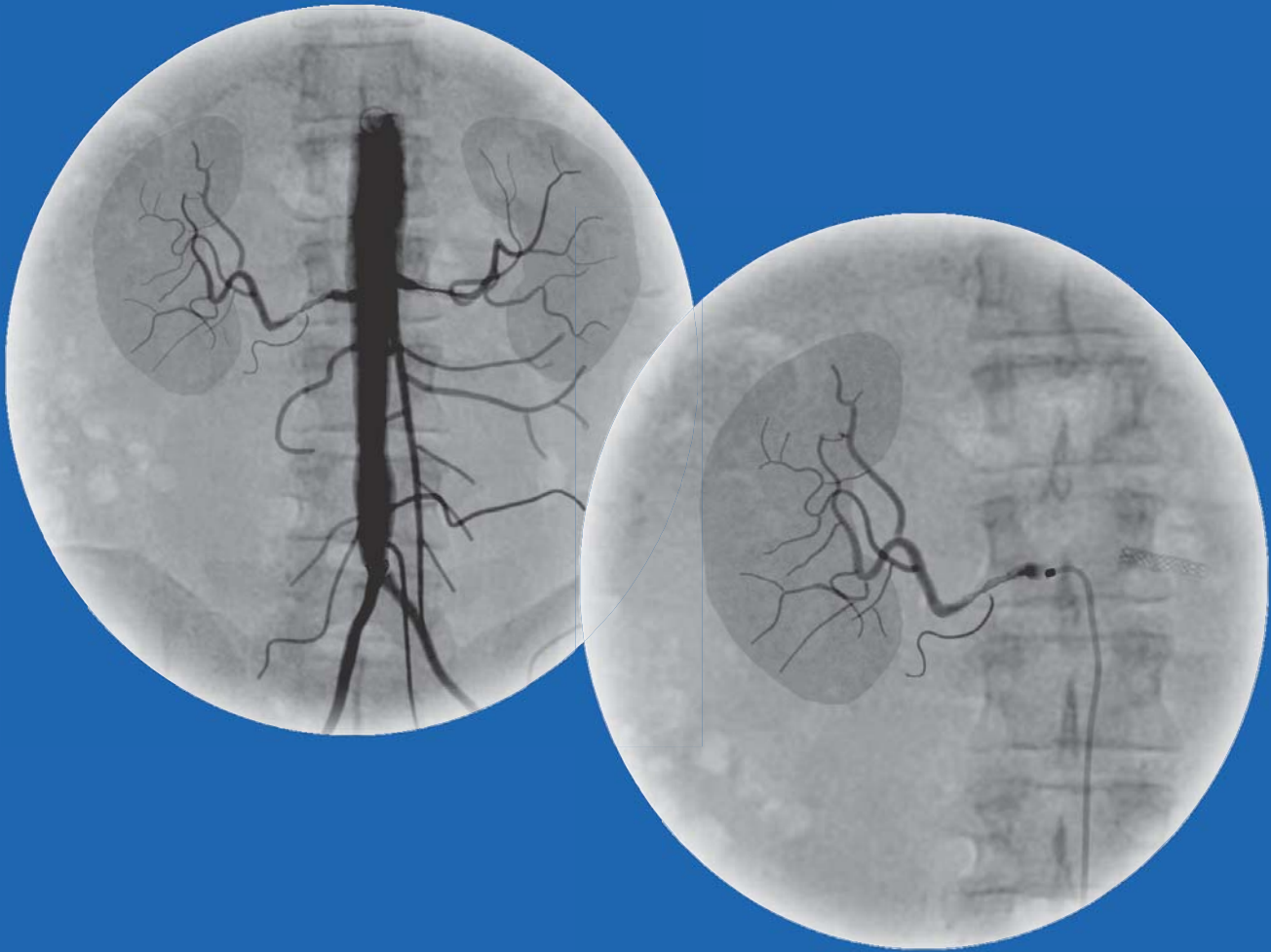


TO STENT OR NOT TO STENT: treating renal artery stenosis



NEW FEATURES!

- Digital subtraction
- Monorail delivery systems
- Manifold with pressure management and contrast injection capabilities
- Integrated balloon and stent inflation device
- Ability to access renal pressure gradients
- Adverse event management: vessel spasm, dissection, and perforation
- Guide sheath and guide catheter techniques available



SIMSUITE[®]
MEDICAL SIMULATION CORPORATION

Renal Artery Angioplasty and Stenting

This course is suitable for all healthcare professionals involved in the care of patients undergoing percutaneous transluminal renal artery angioplasty or stent placement. Participants may include Fellows in endovascular training, Interventional Cardiologists, Interventional Radiologists, Vascular Surgeons, and the entire interventional lab team.

Course Objectives

This course is designed to reinforce and enhance the participant's performance of:

- Pre-procedure, intra-procedure, and post-procedure management of patients with Renal Artery Stenosis (RAS).
- Assessment and interpretation of appropriate diagnostic data.
- Selection and proper utilization of equipment.
- Determining medication and dosing administration.
- Recognition of potential adverse events related to both specific patient risk factors and to the procedure itself.
- Addressing post-procedure patient management.
- Application of evidence-based guidelines to specific clinical situations.

Simulation Features

- Includes the full process of patient care:
 - ♦ Patient presentation, history, and physical assessment
 - ♦ Formulation of patient diagnosis
 - ♦ Formulation of pre- and post-treatment plan
- C-arm manipulation with full range of gantry angles
- Real-time fluoroscopic images with cine and road-mapping capabilities
- Unique and realistic 3-D patient anatomies
- Catheter manipulation with haptic (tactile) feedback
- Over-the-wire and monorail techniques using exchangeable and reusable catheters
- Image acquisition
- Pharmacologic management
- Ability to access renal pressure gradients
- Responsive hemodynamics and patient responses with heart rate and 3-lead ECG, systolic and diastolic blood pressure, aortic pressure, and oxygen saturation
- Adverse event management including arrhythmias, vessel dissection, hypoxia, hypotension, hypertension, cardiac arrest, and others
- Over 500 standard data points captured for immediate performance feedback
- Patient outcomes determined by operator decisions and technical abilities

Benefits

- Increased patient safety—ability to practice procedures in a risk-free environment
- Enhancing competence and confidence®
- Guideline compliance
- Patient scenarios authored and edited by national physician experts
- Consistent training of the entire interventional lab team
- Integration into Quality Improvement Programs

Clinical Applicability

Renal Artery Stenosis (RAS) may account for 1-10% of the 50 million people in the U.S. who have hypertension (high blood pressure).¹ RAS is also being increasingly recognized as an important cause of chronic renal failure and end-stage renal disease if it affects both renal arteries or if the hypertension associated with this condition is prolonged or severe. In older individuals, atherosclerosis is the most common cause of RAS. It may also be caused when scar tissue forms in the renal artery after acute arterial obstruction or traumatic injury to the kidney. As the renal artery progressively narrows, renal blood flow decreases and eventually compromises renal function and structure.

With the advancement of endovascular (catheter-based) techniques, renal artery angioplasty (ballooning) and stenting have become a common way to treat RAS, albeit controversial. Studies have shown that renal artery angioplasty and stent placement produced a significantly greater reduction in systolic blood pressure among patients with the highest baseline systolic blood pressure.² However, patients benefit most when they are the right candidates for the procedure. This module presents realistic patient scenarios and provides the healthcare professional the opportunity to make clinical judgments on treatment based on the patient's specific history and physical findings.

References:

¹Spinowitz, B., Rodriguez, J. Renal artery stenosis. eMedicine from WebMD. www.emedicine.com/MED/topic2001.htm

²Burket, M.W., Cooper, C.J., Kennedy, D.J., Brewster, P.S., Ansel, G.M., Moore, J.A., Venkatesan, J., Henrich, W.L. Renal artery angioplasty and stent placement: Predictors of a favorable outcome. *American Heart Journal*. 139(1): 64-71. 2000.

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