Cath Lab Digest

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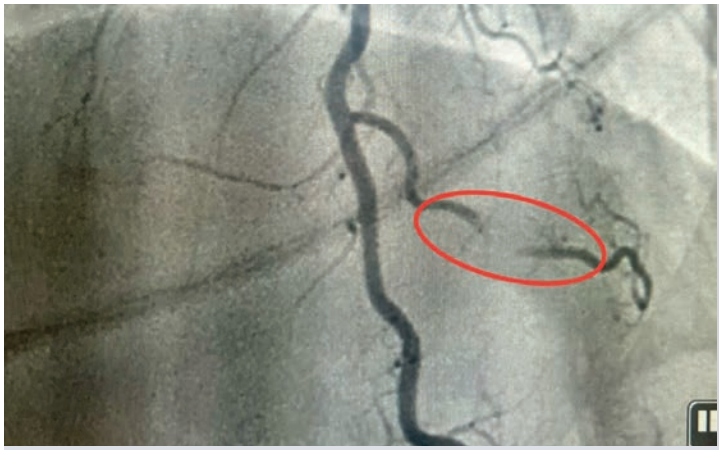

CASE REPORT

Rare Case of Myocardial "Milking" in a Diagonal Branch Artery

Richard Casazza, MAS, RT(R)(CI); Arsalan Hashimi, MD; Nicole DeLeon, MD; Enrico Montagna, RT(R)(CI); David J. Epstein, MD

Myocardial bridging is a very common anomaly, which can be found in more than 30% of the population, based on autopsy studies.[1] It happens when a segment of a major epicardial coronary artery runs intramural through the myocardium. It is a common congenital anomaly sometimes referred to as a "tunneled artery." Systolic compression during filling can result in hemodynamic changes that may be associated with angina, myocardial ischemia, acute coronary syndrome, left ventricular dysfunction, arrhythmias, and even sudden cardiac death.[2]

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REIMBURSEMENT

Aligning Innovation with Access: A Physician's Guide to Agent Drug-Coated Balloon Reimbursement

Partha Sardar, MD

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INTRAVASCULAR LITHOTRIPSY

Cracking Calcium With the C^{2+} Lithotripsy Balloon

Jonathan Hinton, MD; Gao Ong, MD; Mae Bethell, MD; Jennifer Barraclough, MD; Ganeev Malhotra, MD; Thomas Johnson, MD; Simon J. Wilson, MD; James C. Spratt, BSc, MB ChB, MD; Julian Strange, MD; Peter O'Kane, MD

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PROFESSIONAL LIFE

Starting Strong in the Cath Lab: What New Nurses and Techs Should Expect in Their First Days, Weeks, and Months

Bailey Ann Estes MSN, NP-C, RNFA, RCIS; Derek Pineda FNP, CCRN, RCIS, AACC; Srihari S. Naidu, MD

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HMP Global

Starting Strong in the Cath Lab: What New Nurses and Techs Should Expect in Their First Days, Weeks, and Months

Bailey Ann Estes, MSN, NP-C, RNFA, RCIS; Derek Pineda, FNP, CCRN, RCIS, AACC; Srihari S. Naidu, MD

Entering the cardiac catheterization lab (cath lab) as a new nurse or technologist is both exciting and overwhelming. It's a fast-paced, high-stakes environment where every second counts — and no two days are ever the same. You'll encounter cutting-edge technology, complex procedures, music playing in the background, adrenaline-pumping moments, and a team that bonds over jokes and fast food between cases.

Some people fall in love with the cath lab on day one; others may realize the intensity and lifestyle aren't the right fit. Both reactions are okay. What matters most is giving yourself the time and space to learn, grow, and find your footing.

While the transition can feel daunting, knowing what to expect in your first days, weeks, and months will help you build confidence, connect with your team, and start a rewarding career in one of the most dynamic areas of healthcare.

The First Day: Navigating the Unknown

Your first day in the cath lab will likely be filled with orientation, introductions, and exposure to an entirely new workflow. Unlike other hospital settings, the cath lab is a unique blend of procedural nursing, hemodynamic monitoring, advanced imaging and physiology, emergencies and rapid interventions for patients ranging from stable to critically ill. Cath lab staff are expected to critically think and troubleshoot a vast amount of equipment while taking care of patients, turning over rooms, and documenting. Expect to feel out of place, particularly with the unique jargon used in the cath lab, new hemodynamic wave forms, and angiographic anatomy — everyone does at first.

What to Expect

- Overwhelming amounts of new information;
- A fast-paced, high-pressure work environment;
- An interdisciplinary team that includes physicians, fellows, advanced practice providers, nurses, radiologic technologists, and scrub techs.

Key Tips for Success

- **Be Observant:** Watch and listen carefully to how experienced staff interact and work together.
- **Ask Questions:** No one expects you to know everything on day one. Even seasoned staff learn something new every day.
- **Understand Emergency Protocols:** Learn where crash carts, defibrillators, emergency medications, and the code light are located. Knowing emergency protocols is essential and can significantly boost yours and the team's confidence in critical situations.

The First Week: Absorbing the Basics

By the end of your first week in the cath lab, you'll likely have begun to understand the basic flow of cases, how the team works together, and where you fit into the big picture. You won't be an expert yet, but that's not the goal. This is the time to absorb as much as possible, get comfortable in your environment, and start developing the foundation you'll build on in the months to come.

Each role in the lab, whether you are a nurse, scrub tech, monitor tech, or radiologic technologist, has essential skills that need to be practiced through repetition. At this stage, it's less about speed and more about consistency, safety, and observation.

Prioritizing Skills

- **Nurses:** Focus on patient assessment, documentation, medication administration, and sterile field management.
- **Scrub Techs:** Learn equipment names, how to prep and drape a patient, how to prep basic cath equipment, and physician preferences.
- **Radiologic Technologists:** Become familiar with imaging equipment, positioning, and radiation safety.
- **Monitor Techs:** Understand basic hemodynamics, ECG interpretation, and real-time documentation.

Common Misconceptions

- **"I need to know everything immediately."** You don't. Mastering the cath lab takes time. It can easily take 6-12 months to feel comfortable in a single role within the lab.
- **"The cath lab is just like other procedural areas."** While there are similarities, the unique mix of acute interventions and routine diagnostics sets the cath lab apart. As you become more experienced, you'll recognize patterns in the procedures performed, helping you to more effectively support procedures.
- **"I'm just assisting."** Every team member plays a critical role. Whether you're circulating, scrubbing, or monitoring, your role directly impacts patient outcomes.

The First Month: Building Confidence

By the end of your first month in the cath lab, things should start to click. You've likely observed a wide range of procedures, begun to understand your role in different types of cases, and become more familiar with the equipment, workflow, and team dynamics. You may not be fully independent yet — and that's completely normal — but you should start feeling more confident in your abilities and more comfortable in the environment.

You'll still be asking questions, checking your notes, and needing reminders — but the moments where things feel familiar will start to outnumber the moments where you feel completely lost. That's a huge milestone.

Handling High-Stress Situations

- **Know Your Role:** Whether it's grabbing emergency meds, documenting, or assisting with CPR — stick to your lane and execute well.
- **Communicate Clearly:** Your voice, body language, and actions can either escalate or stabilize the situation.
- **Trust the Process:** The team relies on structured protocols—follow them. Experienced staff have contributed to developing these protocols through years of refining best practices. Do not overlook the basic skills that you learned when you first started, these are vital during emergencies and will help you to get through stressful situations.

Unexpected Challenges

- **Adrenaline Surges:** Acute myocardial infarction cases and cardiac arrests can be overwhelming. Be sure to allow time to decompress during breaks and after work. Prioritize your mental health and give your body adequate time to rest and recover.
- **Physical Demands:** Long hours on your feet, lead apron fatigue, and quick response times can take a toll. Listen to your body and develop healthy habits early in your career to avoid burnout. Do not wear your lead unless you are actively participating in a case to decrease the burden on your body. Consider wearing compression socks to help provide circulation support while standing on hard floors for long hours. Stand on soft mats whenever possible.
- **Emotional Impact:** Seeing critically ill patients requires emotional resilience. Remember, it's okay to seek support by talking to trusted colleagues and taking a break when feeling overwhelmed or emotionally burnt out.

Long-Term Success: Continuing to Learn

Even after your first few months, ongoing education is key. The cath lab is constantly evolving with new techniques and technologies. Staying current with Society for Cardiovascular Angiography and Interventions (SCAI) best practice guidelines[1] ensures that you're providing the highest quality care.

Pro Tips

- Seek mentorship from seasoned staff. Many staff members enjoy mentoring new members and passing along invaluable tips learned over the years.
- Attend conferences and training sessions.
- Never stop asking questions! Curiosity and continuous learning are hallmarks of a successful cath lab professional.

Your journey in the cath lab will be challenging but rewarding. Every shift will present new learning opportunities, and over time, you will develop the confidence and expertise to excel in this dynamic environment. Welcome to the team!

The View from the Top: Reflections of a Cath Lab Director

As a cath lab director for going on 20 years, I can tell you that every member of the team is highly valued for their unique vantage point and skill set. Like a Broadway play, every member has their role that is required at the precise time, executed as perfect as possible, and while this does not occur overnight, the process of getting to this orchestrated response to both diagnostic and therapeutic cases is a wonderful journey that is full or pride and job satisfaction.

Your physicians in the lab rely on you! We rely on the fact that you're watching the patient while we're looking at the lesion, that you're monitoring radiation dose throughout the case, and that you know where all the supplies are in a given moment. We rely on the fact that you'll also stay calm as things happen, and focus on the patient and a rapid response to emergencies. We rely on your friendship and jokes in between cases to make the time go by, and make the day pleasurable for all — after all, it's all of our second homes!

Take time to get to know everyone in the lab and remember you're all part of the same team. I've seen labs devolve due to infighting or developing cliques, and this is not the place for that — the big picture and response as a team requires people truly getting along and minimizing insignificant issues for the common good and patient care. At the same time, we rely on seasoned staff to keep the peace and provide an example for early career staff on how to create the work environment that is truly conducive to the best possible care.

We love when staff are particularly interested in certain procedures and become experts in devices or protocols. We also love when staff understand hemodynamics and help us keep the procedure safe by providing a second or third set of eyes when we are multi-tasking. This is one way you can add color to your job and develop a sense of pride that you're a unique resource and constantly learning. Go to the SCAI annual meeting, learn the new techniques or where the field is going, and make it a career rather than a job.

At the end of the day, as already alluded to, the cath lab can become your second home, and is often where staff stay for years, decades and even retire from. It is not a transitionary role, so congratulations! And last but not least, your director and physicians know it's a process and no one is an expert on day 1 — in most cases, you won't be judged for at least a year. So, pace yourself and enjoy the ride! ■

REFERENCE

1. Naidu SS, Abbott JD, Bagai J, et al. SCAI expert consensus update on best practices in the cardiac catheterization laboratory. *Catheter Cardiovasc Interv*. 2021 Aug 1; 98(2): 255-276. doi:10.1002/ccd.29744

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