

AN INTERVIEW WITH...

Mirvat Alasnag, MD, FACC, FACP, FSCAI, FRCP

Dr. Alasnag discusses her experience as a woman in interventional cardiology, the benefits of mentorship, thoughts on treatment strategies and techniques, and more.



You've been open about some of the challenges you've faced as a female interventional cardiologist. What changes need to be made to make the way easier for women who want to follow in your footsteps?

It is critical that the training and work environments adapt to women in the field. Standardizing expectations and opportunities for both men and women, flexible hours permitting lactation and well-baby clinic visits, on-call schedules and primary percutaneous coronary intervention (PCI) coverage that takes into account late pregnancy, and light fitted lead aprons for pregnant women are only some examples of areas where change can make interventional cardiology more welcoming to women.

As a frequent promoter of mentorship, what qualities do you think make a great mentor, specifically in interventional cardiology?

First and foremost, a mentor needs to establish a trusting relationship with the mentee. With reciprocation, a mentee should be receptive to criticism and advice, and a mentor should provide opportunities to advance the trainee's skill set in the cath lab. Mentorship is dynamic; as the mentee grows, their needs change. The complexity of cases can and should increase, and opportunities to present, conduct research, and even lead a team become important. Focusing on details such as radiation safety and judicious use of contrast is part of the skill set that must be extracted in interventional training. It is important to understand that the responsibility is on both ends. The mentee needs to demonstrate commitment and judgment to encourage a mentor to provide such opportunities. In a field like interventional cardiology, patient safety is central and takes precedence. Most mentees and mentors understand that.

One of the many leadership roles you hold is International Ambassador to Saudi Arabia for the Society for Cardiovascular Angiography & Interventions (SCAI). What does this role entail? Can you share any projects you are working on?

SCAI has been a key contributor to training and guideline elaboration. As an ambassador, it was integral to

work on increasing membership and sponsoring SCAI activities that target these, such as evidence-based practices and early career and fellow training. Over the last few years, we have launched the SCAI Fellows' course in the Middle East, where it currently rotates between Saudi Arabia, Egypt, and Turkey. The last virtual course conducted in Saudi Arabia was one of the most successful, with faculty from the region and from SCAI. There were over 2,000 attendees, making it one of the most well-attended SCAI regional courses to date. Other faculty opportunities, including programs such as the Global Case Summit and International Case Exchange, have also resonated with young and established interventional cardiology faculty participating from the Middle East. The international committee has also recently launched a mentorship exchange project with three awardees, including a woman recipient. There were also women who were selected to serve as mentors for the awardees. We are also starting a global series to teach trainees and early career physicians how to write manuscripts/guidelines and present at meetings.

With your roles on editorial boards, work with the Faculty Opinions blog, and highlights and trial summaries from scientific symposia, you have a knack for reviewing and summarizing research. What would you say have been the most influential interventional trials from the last few years? Are there any forthcoming trials or research you are most excited about?

I am first and foremost a clinician. I find that all the science and trials need to eventually translate into a change in practice that we, the clinicians, can understand and deliver to our patients. Important trials that have been integral to current-day practice are not only the "positive" ones but also the trials that indicate areas in need of further exploration. As an example, the GALILEO trial was terminated early due to a higher event rate in the rivaroxaban arm after transcatheter aortic valve replacement (TAVR). However, the substudy that examined leaflet thickening revealed less hypoattenuated leaflet thickening (HALT) and reduced leaflet motion (RELM) in those receiving a direct oral anticoagulant (DOAC). The clinical implications of HALT and RELM remain

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unknown, and the results of the GALILEO 4D study need to be interpreted with caution and in light of the main study demonstrating higher events. These conflicting data and gaps suggest we need to investigate the role of DOACs in TAVR more closely. Trials such as POPular TAVI also addressed anticoagulation in those with and without an indication. So far, the bulk of the evidence suggests that antiplatelet agents suffice for those without an indication for anticoagulation.

There is a lot of research in the pipeline on novel structural interventional devices, embolic protection, and antithrombotic regimens post-TAVR, including the ATLANTIS 4D substudy that is expected to be presented at ACC.2021, the American College of Cardiology's annual meeting. Other trials such as those on the role of colchicine in both acute and chronic coronary syndromes suggest a potential role in those with polyvascular disease and recurrent events. The safety and tolerance are reported to be reasonable, albeit the run-in period could confound the results, and the trend to higher mortality needs further exploration. There are many important imaging trials, particularly the RAPID-CTCA (the role of CT in acute coronary syndrome) and FORECAST FFRCT (the functional assessment of stenosis) trials, that suggest there is a growing role for cardiac CT. I'm looking forward to the ISCHEMIA complete revascularization data and the sex-specific outcomes of the TWILIGHT study, which will be presented at ACC.2021, as well as the EBC Main trial covering left main bifurcation stenting, which will be presented at EuroPCR 2021.

In an article reviewing clinical trials, guidelines, and imaging related to left main PCI, you and colleagues came to the conclusion that left main (LM) PCI is a safe option for select patients.¹ In light of this and now the controversy surrounding the EXCEL trial, where would you like to see the research on this topic go next?

I would like to see data exploring outcomes of PCI for LM in real-life scenarios and data reflecting contemporary practice, such as PCI guided by intracoronary imaging, LM PCI in shock or frail patients, and outcomes by center and operator volumes. In real life, the heart team examines more than the SYNTAX score to determine suitability for coronary artery bypass grafting, and prohibitive surgical risks are not uncommon. These have been largely excluded from trials that include advanced age. Operator experience has not been conventionally factored either.

There are several techniques and strategies for treating coronary bifurcation lesions, as you outlined in your bifurcation series on the American Heart Association Early Career Voice blog.² With this in mind, how do you go about determining your treatment strategy when encountering a coronary bifurcation lesion? Do you have a preferred method?

I try to keep it as simple as possible. Generally, if a provisional strategy can be employed, then that is my preference. If it is a true bifurcation, I assess the size and angle of the side branch to choose between the techniques. If I am concerned about a side branch, then I secure it early with a double kiss, double crush technique. Intracoronary imaging remains an integral step for sizing and optimization. Equally important is a transparent discussion with the patient and family on the complexity of the procedure and a dual antiplatelet therapy regimen.

If you were given funding to develop an initiative to fight the high prevalence of atherosclerotic cardiovascular disease in Saudi Arabia, what would it look like? What do you think would be most important to address?

Dyslipidemia is underdiagnosed and undertreated in the region as a whole. My colleagues and I wrote an article highlighting the gaps and suggesting strategies to tackle this, including improving awareness of new guidelines, educating patients ("know your numbers" should include the lipid profile), lipidology clinics, use of risk calculator, and standardizing regional protocols.³ I am also currently leading a task force that is working for the Ministry of Health to address the gaps in care, and I'm very optimistic.

In your papers on social media related to COVID-19, clinician use, and the interventional cardiology field, you've explored different aspects of the role of social media in the medical field. What do you see as the benefits and the downsides to social media use as a physician?

The benefits of social media include access to expert opinions, links to recent publications, and networking. It also lends an opportunity to engage with operators, clinicians, and patients to permit a well-rounded discussion. The caveat is that the platforms are not regulated, and it is difficult to verify posted information, control trolls, and ensure patient confidentiality. Given that

these are public platforms, it is important to recognize that one's family, employers, lawyers, and patients are privy to all the conversations.

Having already accomplished so much early in your career—being made Cath Lab Director, numerous societal committee appointments, speaking engagements around the world, and more—what are your aspirations for the future?

I have been fortunate to find mentorship and collaboration across the globe. These have permitted me to grow both professionally and personally. I aspire to develop my research skills. At this time, I have learned from the critical appraisal of published/presented trials. I do not have the research engine required for a large randomized trial. Dr. Marie-Claude Morice has given me my first opportunity in the role of a Regional Principal Investigator for the MASTER DAPT trial, and it has been an amazing experience that I am most grateful for. I would like to develop myself in this area as well. But importantly, I would like to continue to work closely

with leaders such as Drs. Morice and Roxana Mehran to lend opportunities to other women and early career physicians. They have been trailblazers, and there is more work to do. This is particularly important to me as a mother and wife. I would like to be a role model in my own home, and I want to have contributed in some way to advancing career women. ■

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Disclosures: None