BroadcastMed | Updates in Ventricular Assist Device Technology (3 of 3 part video series)

GAYATRI ACHARYA: Hi. I'm Dr. Gayatri Acharya at Mayo Clinic, and I'm here with Dr. John Stulak, cardiac surgeon specializing in VAD surgery, Dr. Sudhir Kushwaha, Director of the Cardiac Transplant and VAD Program, and along with Ms. Sarah Schettle, VAD, Coordinator for Mayo Clinic. Welcome.

ALL: Thank you. Good morning.

GAYATRI ACHARYA: Today, we'll be discussing the treatment of mechanical devices for patients with advanced heart failure. Dr. Kushwaha, maybe we could start with a discussion about the comprehensive approach and the Transplant and VAD Clinic here at Mayo Clinic?

SUDHIR KUSHWAHA: Well, we have a comprehensive program which really tries to manage all aspects of heart failure. So when we get a patient with heart failure referred to us, we go through a careful, multi-disciplinary approach to try and figure out what the best therapeutic option is for that patient. And included, in this day and age, as part of the therapy for heart failure is the use of mechanical circulatory assist devices, or VADs, as they're popularly known. And these can be used either as destination therapy or bridge to transplant. And that decision, we'll talk about in a little bit as well.

GAYATRI ACHARYA: Great. Dr. Stulak, when considering referral of patients for VAD, which patients should we be considering?

JOHN STULAK: Let's say, for referrals to come in, we'd like to see them obviously before they're too ill. We know that outcomes after LVAS is very closely tied to how sick the patient is when they present. So if we could see the patient in the clinic when they start to have advanced heart failure symptoms with very light activity. Let's say, New York Heart Association functional class 3B or 4. If we could see them in that state, we know that their outcome after LVAD implantation, whether it's bridge to transplant or destination therapy, will be optimized.

GAYATRI ACHARYA: Great. One of the questions I have as one of the fellows in the program is, what's the age limit for a VAD? Is there one?

SUDHIR KUSHWAHA: That's a very good question. And I would say that we don't have an absolute age limit. We have an age guideline of 65 for bridge to transplant if the patient is a transplant candidate, and older than 65, generally, if their destination therapy. Although that, too, is not absolute. I would say that in our program, the oldest patient we've done an implant in was 84. And that patient actually has done quite well for a number of years. That is more the exception than the rule. But in general, we look at the level of frailty, the level of co-morbidities, in trying to make a decision regarding what type of therapy should be administered to that patient.

GAYATRI ACHARYA: And are there any misconceptions about who qualifies for a VAD?

SUDHIR KUSHWAHA: I think that there probably are misconceptions out there. I think many patients probably think that they're too sick or the therapy is not right for them, or that it's too complicated. And there's just no way I can handle this. And because of our approach, we have a complement of VAD coordinators who are very well trained at educating the patient and trying to get rid of some of those misconceptions. So I would say that any patient with heart failure really should be considered. If they're not suitable for a VAD, then we will consider other heart failure therapies. But I think no patient is really too sick or too well to at least ask the question. Wouldn't you agree, John?

JOHN STULAK: I agree. I think that this is a very underutilized therapy. I think because of the misconceptions out there-- the complexity of care, the great amount of complications-- that it is an underutilized resource for treating patients with very difficult heart failure. I think that this is a therapy that should be considered when medical therapy is reaching its limits.

SARAH SCHETTLE: Yeah. I agree with Dr. Kushwaha in that, very often, if we can get this educational process started earlier, then patients are familiar with the device before they get to the point of requiring that therapy. And it can certainly ease that transition towards advanced therapies than just learning about it, perhaps, a month or two before they get the device.

SUDHIR KUSHWAHA: And some patients who we've implanted really came into the whole process totally ignorant of the procedure, totally ignorant of the fact that this therapy was out there. And many of those patients' lives are being transformed because they're able to be physically active. They're able to spend time with their family and their grandchildren, and go on excursions and trips, which they never would have been able to do had they not had the therapy. So I think that there are a lot of possibilities, and we would encourage providers to consider an earlier referral to, at least, ask the question.

GAYATRI ACHARYA: Great. And it really seems like the team-based approach benefits the patient the most. Are there any other considerations for referring physicians, Dr. Stulak?

JOHN STULAK: I think like Dr. Kushwaha said, just to stress his point, whenever we feel we're reaching the end of medical therapy, that does not necessarily need to be the end for this patient. And I think it's at least worth the work-up from all aspects, the medical aspect, the surgical aspect, socioeconomic aspects, to really see, are there options for this patient? And like I said, I think it's underutilized. I think the referrals just have not been reflective of how many candidates are out there who would benefit potentially from this therapy.

SUDHIR KUSHWAHA: And I would also say that we have this multidisciplinary approach. We have a comprehensive meeting where we discuss each patient in an individual way and try and reach a decision based on several inputs, as Dr. Stulak just said, that it's not just one individual's opinion as to what they think should be done, but really, the input of many providers, many members of nursing staff, social work staff. So it really, I think, ends up being a decision which we hope is best for the patient. And it may not end in VAD therapy. We may say, OK, well, this patient is not quite ready now. But in six months' time, they probably will be. That way, they're at least in the system. They're going to have careful follow-up, and hopefully, a comprehensive approach to their care.

SARAH SCHETTLE: And I think because of that multidisciplinary approach, we have a lot of things implemented to allow patients to succeed with these devices for the long term, including our colleagues from Physical Medicine and Rehabilitation, where they actively engage the patient and help them make that transition to home and to be able to do those things that they'd like to do. We engage colleagues from Social Work to make sure that the financial piece and, perhaps, some of those things that are necessary to transition to home are included in the process. So there's multiple people, beyond even just Cardiology and Cardiovascular Surgery, that are engaged in these patient care from the very beginning, throughout the continuum of their duration of LVAD therapy.

GAYATRI ACHARYA: Great. This seems like a very important discussion for our patients with advanced heart failure. Thanks for joining us today.