Ferhaan Ahmad, MD (00:16):

Welcome to the Hypertrophic Cardiomyopathy Podcast, entitled HCM and New Pharmacological Agents. This is one of a series of podcasts from the American Heart Association HCM initiative, sponsored by Bristol Myers Squibb. I am Ferhaan Ahmad. I'm an Associate Professor in the Division of Cardiovascular Medicine at the University of Iowa, and I'm also Director of the Cardiovascular Genetics Program and the Hypertrophic Cardiomyopathy center of excellence here at Iowa. I am joined today by a great panel of experts. First, we have Dr. Anjali Tiku Owens, who is a heart failure cardiologist and an Assistant Professor of Medicine at the University of Pennsylvania in Philadelphia. She's also the Medical Director of the Center for Inherited Cardiac Disease.

Ferhaan Ahmad, MD (01:02):

We also are joined by Dr. Sara Saberi, who is a cardiologist and a Clinical Assistant Professor at the University of Michigan in Ann Arbor, and she's a member of the Inherited Cardiomyopathy Program there. Finally, we have Pastor Kent Sperry who is a patient with hypertrophic cardiomyopathy, who was diagnosed at the age of 37 years, and he has a family history where his father was diagnosed earlier at the age of 50 years, and three of his six children have inherited the pathogenic genetic variant that's running in his family.

Ferhaan Ahmad, MD (01:35):

So, welcome everybody. We're going to spend the next little time talking about some of the newer agents that are still in development or have just recently been approved for treatment of hypertrophic cardiomyopathy. I think we're all going to start with the obvious candidate that just got approved called mavacamten. I think a number of us have been involved in some of the landmark clinical trials for this agent. So, I'll start with Dr. Owens and ask her to give us her thoughts about some of the results and potentially the clinical applications of some of these trials. We'll start with the landmark trial for obstructive hypertrophic cardiomyopathy and mavacamten called EXPLORER-HCM. Anjali, do you want to tell us a little bit about the main findings there?

Anjali Tiku Owens, MD (02:20):

Sure. So, as you said, EXPLORER-HCM was the pivotal trial Phase 3 randomized control trial of the first in class agent mavacamten, which is a novel cardiac myosin inhibitor. This trial was the largest RCT to date really in symptomatic obstructive HCM patients. It enrolled approximately 250 patients, and most of these patients were New York Heart Association functional class two at baseline, and approximately three quarters of them were on beta-blocker therapy. So either beta-blocker and the remainder were on calcium channel blockers. So, our standard therapy for symptomatic obstructive HCM and patients in this trial were either on placebo or mavacamten starting with a dose of 5 milligrams, and the patients who were on mavacamten had up titrations or dose titrations that were either up or down at about eight weeks and 14 weeks into the trial, and treatment was continued for 30 weeks prior to a washout.

Anjali Tiku Owens, MD (03:24):

What we found was pretty remarkable in terms of mavacamten's effect on LVOT gradient, both resting and provokable gradients were improved significantly in the group of patients receiving mavacamten versus placebo. In addition, the trial met its primary endpoint, which was a composite of improvement in peak VO2, so CPAP testing and improvement in NYHA functional class. We saw a significant improvement in those parameters and that composite endpoint in the group receiving mavacamten versus placebo. I think in summary, these findings are exactly what you would hope to see in your

patient who has obstructive HCM, and that is that mavacamten led to improved exercise and side effects, overall.

Ferhaan Ahmad, MD (<u>04:35</u>):

Sara, this was the pivotal trial as Anjali was saying, but more recently there were data presented on VALOR-HCM, which I guess extended the target population potentially in the future for mavacamten. Can you tell us a little bit about VALOR?

Sara Saberi, MD (<u>04:52</u>):

Absolutely. So, I think the question that VALOR built upon was whether or not mavacamten could be effective at reducing the need for invasive procedures that oftentimes patients with obstructive HCM end up needing to have in order to have symptom relief. Primarily they were looking to see, can patients who are treated with mavacamten not undergo or delay the need for an invasive septal reduction procedure, such as a surgical myectomy or alcohol septal ablation as compared with placebo? So, again, the patients had obstructive HCM and they had to be symptomatic because that's what the indication for doing something invasive is for management obstruction in HCM. So, they had to have New York Heart Association class III or IV symptoms, which is what the ACC/AHA guidance is for intervening on obstructive HCM, or they had to be class II, but also have experienced exertional syncope or near syncope that would really suggest that there's quite a significant burden of dynamic obstruction.

Sara Saberi, MD (<u>06:06</u>):

They had to be on maximal tolerated medical therapy for management of the obstruction, and they had to have normal ejection fractions greater than 60%. Then a significant outflow obstruction with LVOT gradients either at rest or provocation that were over 50 millimeters of mercury, which again, those are all pretty much what the guidelines are in terms of intervening invasively on patients with obstructive HCM in order to really notice a significant improvement. So, what they found was that after 16 weeks, so four months of treatment with mavacamten, those who were on the treatment arm had a significant reduction in terms of a decision to proceed with septal reduction therapy as compared with placebo.

Sara Saberi, MD (<u>06:55</u>):

They were looking at secondary outcomes like improvement in New York Heart Association class, so symptom burden, outflow obstruction, and then personal sense of wellbeing and clinical symptoms assessed by the KCCQ, and all of those secondary outcomes were also met, meaning that mavacamten was superior to placebo in terms of improvement there. There were no new safety signals that were found during the course of this trial as compared with the EXPLORER trial, and there were really no significant differences in the treatment group as compared with placebo.

Ferhaan Ahmad, MD (<u>07:33</u>):

Right. So, I guess the VALOR subjects were just sicker than many of the EXPLORER subjects and more severe disease. So, this trial showed that mavacamten defective reducing obstruction in those patients, as well as the ones with milder obstruction in EXPLORER. The next question of course, is to see, do a head-to-head comparison between mavacamten and septal reduction therapy, and actually see if clinical outcomes are different long-term? But that's a very challenging trial to do, so we'll see what happens. But I guess that would be the ultimate question to answer. I think we have a lot of data for obstruction. What's more challenging, I guess, is generally clinically it's much more challenging sometimes to manage patients who are symptomatic and are not obstructed. There have been some

studies and trials focusing on the non-obstructed population, probably the biggest trials as a Phase 2 trial, MAVERICK-HCM and non-obstructed ACM. Can you comment, Anjali, on what we found with MAVERICK, and how it might apply to our non-obstructive patients?

Anjali Tiku Owens, MD (08:34):

Yes, definitely. I completely agree that the non-obstructive patient population is so difficult to treat because we really don't have very effective pharmacotherapies for that group of patients who are symptomatic. So really MAVERICK was a Phase 2 dose finding study looking at mavacamten versus placebo in patients who were symptomatic class II or higher with non-obstructive HCM. The primary objective of this study was really safety and tolerability, and then they looked at secondary exploratory outcomes, including that same composite functional endpoint that we saw an EXPLORER looking at NYHA class, looking at LVEF, diastolic function and also cardiac biomarkers, including troponin and NT-proBNP. One thing to note about this study is that dosing was guided by PK and not by echo because, of course, in our non-obstructive patients, we don't have that biomarker of a gradient to look for.

Anjali Tiku Owens, MD (09:36):

So it's more challenging, I think, to understand dosing in this population and for this study, which was a dose finding study, they used PK values and there was about 59 or 60 patients who were enrolled and randomized. Again, most of them were functional class II, and most of them were on background therapy with either a beta-blocker or a calcium channel blocker. Similar to other studies in myosin inhibitors, the ejection fraction was in the high 60s, which is what we would typically see in a patient with non-obstructive HCM, and many of them had diastolic dysfunction, left atrial enlargement, pretty much what you would expect.

Anjali Tiku Owens, MD (10:16):

Now, there was a subgroup that had higher levels of cardiac biomarkers at baseline. So, markers of strain and injury, including elevated NT-proBNP and troponin. What they saw in the study is that basically the medication mavacamten was well tolerated for the most part, but what they did see is that about 12% of the patients 5 out of 40 did have a reversible reduction in LVEF to less than 45%, which led to a protocol driven treatment discontinuation.

Anjali Tiku Owens, MD (10:53):

With that discontinuation, because the cardiac myosin inhibitor, mavacamten is reversible, the LVEF did then recover over several weeks. So, being a dose finding study, they did find that there was some reversible decrease in the EF. This was not met by the trial. There was no significant difference between the mavacamten and placebo groups with regard to the composite functional endpoint. But then when they looked at a subgroup of patients, and those were the patients who came in with a high troponin or an elevated E/E', again, suggesting that they were that sicker cohort, and more diastolic dysfunction, that in that group, there was a difference in 30% or so the mavacamten treated patients meeting the composite endpoint versus none of the placebo treated patients. So, again, this suggests that perhaps a sub cohort of patients with HCM, non-obstructive HCM may benefit from myosin inhibitors. But what we really need is a Phase 3 trial, a larger group of patients with a longer time of treatment in order to see which subgroup of patients with non-obstructive HCM may benefit.

Ferhaan Ahmad, MD (12:04):

And I think that's going to happen. So even though initially when on first glance looking at the results in the trial, I was a little bit disappointed because, admittedly, this is not designed as a trial to assess function, but superficially, it looked like there was no difference in functional outcomes, but there may be some hope because as you were saying, Anjali, in the more severe symptomatic patient with sick non-surgical patients, where we have very little to offer other than transplant, they might benefit from mayacamten.

Ferhaan Ahmad, MD (12:31):

One thing that's also kind of important to remember, I think, is that all these trials are in open label extension phases too. So, we're going to get much more long-term data on all these trials and see what happens over longer course, and hopefully that will inform our care of patients, especially those patients that we might be starting on mavacamten now that it's approved. I'd like to spend a couple minutes on another agent that another myosin inhibitor similar to mavacamten that's being developed. It's not yet approved, but it's in clinical trials, aficamten the major trial that so far has been presented is REDWOOD-HCM. This is again a Phase 2 trial in obstructive HCM patients. Sara, can you summarize the findings there for us?

Sara Saberi, MD (<u>13:19</u>):

Sure. So, aficamten is the new kid on the block that's currently in a clinical trial, and the Phase 2 study of aficamten is looking again at patients with obstructive HCM, and at basically two kind of cohorts or dosing schemes to try to identify the correct dosing scheme for patients to relieve obstruction without inducing side effects that would be untoward in terms of its safety profile. So, the results have been presented, but the manuscript not published yet. 41 patients with obstructive HCM participated in these two cohorts. They had either resting or dynamic obstruction with gradients greater than 50 millimeters of mercury, and they were either randomized to aficamten or to placebo, and it was actually two to one. So, two to aficamten for everyone that was receiving placebo. The dosing scheme for cohort one was escalating doses of five, ten, and fifteen milligrams versus cohort two, which was escalating doses of 10, 20, and 30 milligrams daily.

Sara Saberi, MD (14:24):

The doses were titrated in a blinded fashion based on outflow obstruction and ejection fraction, and they were looking at safety and tolerability first, because it's a Phase 2 trial, and then looking also at changes in outflow obstruction, ejection fraction, New York Heart Association class, as well as cardiac biomarkers. What they found is just like in the mavacamten studies, the aficamten was well tolerated by patients, there were not significant safety concerns as compared with placebo. The exploratory analysis found significant improvement in the degree of outflow obstruction and improvement in New York Heart Association class and an improvement in biomarkers, including troponin and NT-proBNP. So, that is being followed up with Phase 3 clinical trial, which I think we'll probably be touching on a little bit later as well. Again, this data has not been published but has been presented.

Ferhaan Ahmad, MD (<u>15:23</u>):

Right. So, that's SEQUOIA, it's the Phase 3 trial that's actually just underway now and some new sites are still being initiated. So yeah, we'll have larger cohort of patients that will receive aficamten or placebo, and we'll see whether same benefits both in terms of obstruction, I guess, but also in terms of functional outcomes, including exercise tolerance and VO2 max as a major endpoint. A lot of excitement right now,

but potentially a second myosin inhibitor showing the same efficacy in a larger cohort with more endpoints being assessed.

Ferhaan Ahmad, MD (<u>16:01</u>):

I'd like to return to mavacamten because that's actually the agent that is just approved by the FDA. So, all three of us, I think, are facing the issue of now starting to prescribe these medications, and there's been so much excitement, not just in the medical community, but also amongst patients. I'm sure all of us have been getting calls and messages from patients asking about mavacamten. It's a tricky subject and a tricky medication to start the least of the reasons being that if you don't dose it right, the EF drops. It's reversible, but the EF does drop. Sara, do you want to start out by telling us... Actually, have you started anybody yet on mavacamten, and how are you selecting appropriate patients?

Sara Saberi, MD (16:43):

I have done my training, so I'm now certified to prescribe it. Unfortunately, our pharmacy does not have an active contract yet, it's going through all the negotiations that go through between pharmaceutical companies and the university in order to have a contract to be able to dispense it. But I anticipate in the coming weeks that we'll probably be starting our first patients on it. Who I'm going to be looking at? Basically, will be pretty similar to the trial patients. So, those who have significant symptom burden New York Heart Association class II and III, I honestly think that if someone truly has class IV symptoms and especially if there is a significant component of mitral regurgitation as well, that I'm unlikely to use mavacamten only because I can't really dose adjust for three months after I start it from a safety perspective. So, I think that's a long time to wait to see a dose benefit in somebody when I could instead have a significant improvement by intervening on it, either with surgical myectomy or alcohol septal ablation.

Sara Saberi, MD (17:53):

To be honest, we primarily do surgical myectomies here. I would be looking to somebody who has, what I think is a tolerable symptom burden for three months and initiating it then. The other patient group that I think I would probably be pretty careful about starting it in are women of childbearing age. So, the medication is contraindicated during pregnancy and with breastfeeding, we just don't have enough data to say that it's safe and there are real safety concerns there for a growing fetus. So I would definitely not want to start somebody on mavacamten who would potentially be contemplating a pregnancy in the coming months or year, because then I just have to take them off the medication, and then I have to deal with symptomatic outflow obstruction while they're pregnant, where that may pose significant problems for the patient. Not that it would contraindicate the pregnancy, but it just will complicate it more for them.

Sara Saberi, MD (<u>18:54</u>):

So, those are the two types of patients I think I would stay away from, but grossly people who are hyperdynamic and who have symptomatic either resting or dynamic obstruction. I think the other group that it's important to highlight that we really need to be careful about and maybe we don't think that much about are patients who have previously received a chemotherapy or other agent that may have cardiotoxicity where the myocardium may not function normally at a cellular level, and we may unmask that with giving a myosin inhibitor and really kind of spiral things out of control that maybe would not have been otherwise. That's another group, I think, we need to be really careful about taking appropriate histories and thinking that through.

Ferhaan Ahmad, MD (19:40):

Right. So, if you look at just the indications, they're actually fairly liberal and there's not a lot of guidance specifically on the exact patients that you'd want to start on mavacamten. So, it is incumbent on us to make the right decisions, and along with our patients. I'm glad you pointed out some caveats there. How about you, Anjali, have you started yet? Or at least I'm sure you're thinking about the kinds of patients that you will be starting on mavacamten.

Anjali Tiku Owens, MD (20:07):

We actually have started. We have prescribed mavacamten to the first two patients and we've actually put into place here a system due to the REMS program. So, as you know, the FDA approved mavacamten, but under a REMS program for risk evaluation mitigation due to the risk of systolic heart failure. So because of that, we've put in a protocol in place and a clinic structure that set up to do baseline evaluation, where we're going to do a baseline echo, run through all the background medications, run through any concomitant medications that may have a drug-drug interaction with mavacamten, which is also important due to its metabolism through the liver. So we are going to look at all of those potential interactions prior to starting mavacamten, and then go ahead and start it with echo follow-up as mandated by the FDA.

Anjali Tiku Owens, MD (21:03):

Another important point in choosing the right patient for mavacamten is really making sure that the patient understands the REMS program and that they're willing to sign up, they're willing to be monitored, they're able to come back for those frequent echos, which are about a month apart for the first three months, and that they're able to reliably report any symptoms or issues that come up as they start to take the medication, and also able to report any new medications that are prescribed to them perhaps by their primary care doctor, an antibiotic or some other medication, so that we can make sure that they're not going to have a drug-drug interaction.

Anjali Tiku Owens, MD (21:42):

As you know, it's going to be dispensed by specialty pharmacies to start. So setting up that whole logistic system so that we can monitor these patients closely, I think, is really important, and yet to be seen how easy that is to be done outside of an academic medical center, where we obviously have a lot of staff, a lot of support in terms of nursing, pharmacists, etc. So, I think it'll be interesting to see how it's able to be rolled out.

Ferhaan Ahmad, MD (22:08):

Yeah, so I think we're all in a bit of a learning process here on just the logistics of prescribing mavacamten. As you say, monitoring these patients for their ejection fractions and for all these drugdrug interactions, and even over-the-counter medications, some of them could interact with mavacamten. So, it's certainly something you have to keep our eye on very carefully. I was going to ask you about challenges in prescribing this, but I think we covered some of the caveats we have here and the potential for harm in patients that we just have to monitor them really carefully.

Ferhaan Ahmad, MD (22:39):

I'm going to throw this out to both of you. Obviously, mavacamten is a new agent recently developed and we have very little real world clinical experience yet, or at this point. So, what are the unknowns

that you know we need to learn about in the future? It's a very broad question. I'm just going to throw this out to both of you.

Anjali Tiku Owens, MD (22:58):

I would say from my standpoint, it's interesting to see what the real world population is going to be like. So, the clinical trial population is obviously a very controlled population, their comorbidities are controlled, they're a small select group, and I think it'll be much more interesting to see how an agent that modulates contractility in the way that myosin inhibitors do interplay with the rest of the comorbidities that we know the real world has, which is occasionally people will get very sick and get septic shock or bad pneumonia, or they will have a myocardial infarction, and their needs for contractility will change. So I think in that much of a dynamic real world setting, it's going to be interesting to see how we're able to use myosin inhibitors. I do think we'll reach a point where we become more comfortable with it, like anything else new, and as cardiologists, many of us are comfortable modulating contractility, understanding hemodynamics.

Anjali Tiku Owens, MD (23:55):

So I do think it'll find its niche, but it's probably not going to be like the clinical trial setting. We may find some bumps that we weren't anticipating, or that it's a little harder to manage. I'd be interested to hear your thoughts as well.

Sara Saberi, MD (24:10):

I would agree with you. I think I'd also like to point out that as part of the FDA label and the REMS process, the method for uptitrating the dose, the medication is actually much slower than it was in the clinical trials. So it'll be interesting to see because one of the things that was most satisfying in participating in these trials was seeing patients after four and eight weeks feeling much, much better. So what I a little bit nervous about is that at three months into this process, that maybe a good number of patients will be like, "I'm doing all of this monitoring and I'm coming in and incurring all these costs, and I don't feel a whole lot better, and when am I going to feel better?" So, I think it's going to be important to set expectations reasonably. I think for those of us who've been participating in the trials, that may be actually a little harder because we've had such good experiences and positive feedback about how much better our patients have been feeling and how quickly that's been.

Ferhaan Ahmad, MD (25:17):

I think those are great points. So I'm a basic scientist as well, so I approach this from that standpoint and my unknown is, what's going to happen long-term in terms of disease modulation potentially? There are some data from sub studies to explore, and then there's preclinical data in animals, including some of what I've worked on showing potentially a slowing down or even partially reversing the phenotype at the cellular level in patients with animals, with HCM. So I'm really the most excited about it. Obviously, I'm excited about the hemodynamic effects, but wouldn't be really cool if we had a way of potentially at least maybe not eliminating HCM, but attenuating it, or partially reversing it. I think that would be a wonderful thing to see as well. Cognizant of the fact that can be long-term effects that we just don't know that are not something positive, but hopefully we will actually find some long-term effects that are actually disease modulating as well or modifying.

Ferhaan Ahmad, MD (26:15):

Good. So besides these new agents, we do also have some existing agents that are used for heart failure and hypertension that might have some applications in HCM. I'm going to ask, Anjali, because you're a resident heart failure expert on SILICOFCM, for example, in non-obstructive HCM.

Anjali Tiku Owens, MD (26:36):

I think there may be a role for a subset of patients who may benefit from an RNA with non-obstructive HCM. In my mind, those are the people that more closely approximate a HFpEF patient or a patient on the HCM spectrum who may be moving or transitioning to a point from hyperdynamic LV function to more normal or even mildly reduced LV function in folks with high filling pressures who perhaps need a bit of diuretic. We know that the RNA functions as a diuretic as well. I think in that subgroup of patients, there may be a benefit that's yet to be seen and hopefully will get results from the study.

Ferhaan Ahmad, MD (27:19):

The other trial that I always been interested in is VANISH trial looking at Valsartan in patients that were genotype positive, had a genetic variant that's associated with HCM, but had a mild phenotype. Sara, do you want to tell us a little bit about Valsartan as a potential disease modifying agent?

Sara Saberi, MD (<u>27:38</u>):

Yeah. So the VANISH trial was done in patients who had kind of were genotype-positive. So, a pathogenic sarcomere variant that was known to be disease causing and with mild disease. Meaning that the relative hypertrophy burden was lower. So, LV wall thickness was lower than your average still well within an HCM spectrum, but these are not patients who have wall thicknesses of 25 and 30 millimeters. It's more like in the 15 to 18 millimeter range, and whose left atrial are not massively dilated who have not had low EFs or complications like atrial fibrillation and congestive heart failure develop.

Sara Saberi, MD (28:25):

So, they tend to be younger, the mean age of the participants was around 38. What they did was they randomized patients to either placebo or valsartan, and looked at markers of disease progression over a two year period of time. We're talking about disease progression, so it's unusual to see change over a short period, which is part of what I think you were alluding to, Ferhaan, is what's exciting about mavacamten is that in the EXPLORER cardiac MRI substudy. With just six months of treatment, we saw evidence of positive remodeling and reverse remodeling where in VANISH, it took two years of treatment to see that change where patients who have milder form of disease were noted to have improvements.

Sara Saberi, MD (29:14):

It's also an interesting trial in that this particular composite outcome. Isn't something that has been looked at in the HCM population in the past. So, it's looking at a whole host of characteristics about the heart. So, the wall thickness, measures of diastolic function, high sensitivity, troponin, NT-proBNP, were all assessed into a composite outcome. What we did find in that trial is those patients who are mildly affected as opposed to even within the mild spectrum that was enrolled in this trial, those who had more thickness were older, had lived with the disease a little longer, didn't have as much of a benefit in terms of cardiac remodeling, as those who were younger and had less significant burden of disease.

Sara Saberi, MD (30:04):

Also, interestingly, those patients who had genetic predisposition, but no evidence of the disease from imaging standpoint had no changes. So, it seems again like there is niche population of patients for whom valsartan may be effective in slowing the progression of the disease. Since the trial was published last summer, I have been picking patients of mine who fit the milder category of patients that were enrolled in the VANISH study and talking to them about starting the medication as a means to hopefully delay progression.

Sara Saberi, MD (<u>30:46</u>):

It is tough to talk to somebody about being on a medication long-term. When they feel great, they don't have symptoms, they don't have anything going on that would otherwise necessitate treatment, as far as the guidelines are concerned. But I think the patients that I've had who have the most interest in doing it are those who have significant family histories, where they've seen their parents, grandparents, aunts, uncles, suffer some of the longer-term consequences of the disease. When they've lived with that in their family, they're actually much more attuned and looking forward to something that may actually prevent the progression of disease for them.

Ferhaan Ahmad, MD (31:30):

So, everything else it's shared decision-making with our patients and they help us decide whether to proceed or not. I'm going to bring in Sperry Kent into our discussion now. I have a couple of questions for you related to some of these new agents. You had a myectomy in the past, and you're on [inaudible 00:31:49] now. But if you had the option of either having, what I would say is, definitive therapy with the myectomy versus potentially lifelong medications with one of these newer agents, do you have any thoughts about which way you would go personally?

Kent Sperry (32:06):

Yeah, it's a hard question. Something similar was offered to me. About the time, it was determined that I needed further treatment. I was found eligible for the mavacamten trial. That was one of the options that was offered to me. I probably would've considered it more where it not for the fact that I live quite a distance from my HCM specialist, that's about a nine-hour drive and needing to go every month to be seen. It just seemed like it was going to be rather difficult.

Kent Sperry (<u>32:34</u>):

The other side of it, for me, as far as the trial went, was knowing that I would likely have to be on a placebo for a time as well as on the drug, and I was feeling so poorly. It just sealed the deal in my mind that I was going to go for surgery, but had some of those obstacles not been in the way. I think I may have very well decided to try mavacamten. Some of it's just the emotional aspect of open-heart surgery, even though it's relatively safe nowadays, the risk factor is very, very low. It's still not something that excites you. So I think having that option before me, I would've considered it very, very strongly.

Ferhaan Ahmad, MD (33:13):

Right. I think we now have a great point. We were all justifying the excited about these new agents and they will have their place in our armamentarium of what we have to offer patients. But the reality is that it's still difficult. Folks like you, who are living far away from HCM centers, it's going to be a challenge to be on some of these medications. You're blessed to have six children out here. Three of them, unfortunately did inherit the genetic variant that's been running in your family. We touched on it. We don't know for sure at this point, but we touched on the fact that maybe some of these agents will be

disease modifying and maybe help prevent the progression of HCM. Do you have any thoughts? Let's say that it's ultimately proven. Do you think you'd like to have your kids on these medications long-term?

Kent Sperry (<u>34:00</u>):

Well, like some of you've said, that's definitely a decision I would want to make in conjunction with their doctor, but the idea that I find rather exciting as was said, watching how HCM is played out in my family, if one of these medications were found to delay or even to prevent progression of disease, I think that's something I would certainly consider for my children and even the older children, something I might encourage, I would want to involve them in the decision-making at that point, but definitely would encourage them in that direction.

Ferhaan Ahmad, MD (34:32):

All right. Well, that's been a great discussion. I don't know if anybody has any final thoughts to want to bring up. I think I've learned quite a bit here.

Anjali Tiku Owens, MD (34:42):

Yeah. I think my only final thought is just to echo what Kent was saying, which is that access is key and both for invasive septal reduction therapy and also for novel therapeutics that it's really on all of us in the healthcare field to make sure that we get equal access for our patients. Those who live far, far away from HCM centers, those that live in cities that don't have access, all kinds of different groups of patients, young and old, minorities, etc. and that it really is upon us to try to ensure equal access for our patients.

Sara Saberi, MD (35:18):

I think that the drug could actually be a real boon to patients who live in more rural areas who maybe can't access a surgeon very easily going to a center of excellence for a myectomy. When you have to travel from three states away, incurs its own costs, time away from work, time away from your family, which becomes really challenging when you're in the hospital, especially. You can also think about those issues that are challenges for one path of treatment could also be beneficial in other paths of treatment. Like Dr. Owen said, it's onto us to take the initiative to problem solve and to really meet people where they are in order to be as helpful as we possibly can. These medications are really exciting. They won't replace the tools that we currently have, I think, they will be additions to the tray of options and it's great to have options.

Ferhaan Ahmad, MD (36:18):

That would be my final thought. I would echo your statement that, in addition, it's going to compliment our existing therapies, but not necessarily replace every other therapy. I don't know if you have anything else to add, Kent.

Kent Sperry (<u>36:34</u>):

No, I think you've all covered things very well. I'm just appreciative to all of the research that's been done and all of you who are doing so much work to improve our lives, who are living with the disease.

Ferhaan Ahmad, MD (36:45):

All right. Well, with that, thank you all for participating in this podcast with us today, and a lot of important points about new pharmacologically HCM have been discussed. This podcast is a part of the American Heart Association HCM initiative, sponsored by Bristol Myers Squibb. In closing, I'd like to remind everyone listening to encourage your patients to play an active role in their medical care by advocating for themselves and their family members. To get additional information, please visit the AHA's Hypertrophic Cardiomyopathy website for more education. Thank you.