The Latest News for Atrial Fibrillation
Convention Connection: AHA Scientific Sessions
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Andrew Schorr:
Besides the concern about blockages in the arteries that supply the heart with blood flow, and that of course can lead to heart attack, there are many people concerned about the rhythm of the heartbeat, and so that too is an important discussion at the American Heart Associations Scientific Sessions in Chicago. We spoke with an expert in the rhythm of the heart, and that’s Dr. Rajat Deo from the University of Pennsylvania, Penn Medicine. Dr. Deo, let’s talk about arrhythmia. I know there’s been a lot of news here related to atrial fibrillation, which I understand is the most common arrhythmia. What’s the news?

Dr. Deo:
Well, there have been a lot of different studies that have evaluated various aspects of atrial fibrillation, including studies that have evaluated novel anticoagulant medications that can be used in patients with atrial fibrillation. There have been pacemaker trials that have evaluated the burden of atrial fibrillation among patients who have dual-chamber permanent pacemakers. And there have been several genetic studies that have evaluated the cardiac ancestry and epidemiology of atrial fibrillation within population based studies.

I think one of the largest trials that was recently presented was the Rocket AF trial that evaluated a novel anticoagulant, namely rivaroxaban which is an oral factor Xa inhibitor an compared it to Coumadin which is the traditional anticoagulant that we’ve been using for ages for the treatment of complications from atrial fibrillation, namely stroke or systemic embolization.

Andrew Schorr:
Okay, now, let’s talk about that for a minute. Patients who are on Coumadin, typically seniors, older people, have to be monitored really carefully, and I know the dosage is tricky, and I know there’s been some concern were people even getting an effective dose. And they were at risk for stroke. What would be the advantage of newer medicines?

Dr. Deo:
Well, I think that’s – you touched on a very important topic, I think. There are several studies, both clinical and epidemiological ones that have demonstrated that as many as 45 percent of patients who are on Coumadin do not achieve an adequate time in therapeutic range. As a result of that, they are at increased risk of developing complications from atrial fibrillation, including stoke or systemic embolization.
The advantages of a novel agent, such as a Factor Xa inhibitors, such as rivaroxaban, would include less need for careful monitoring because these are oral agents, they would be taken at a fixed time interval, and patients would not need to be monitored as closely to insure that they’re at a therapeutic range. It would just be like taking a blood pressure medication.

Andrew Schorr:
All right, so let me see if I get this right. The concern with Coumadin is careful monitoring, but still some people, maybe because of the power of the medicine, dialing that back, were not on an effective dose and were at higher risk of stroke. Now, with newer medicines, potentially less careful monitoring, but still an effective dose.

Dr. Deo:
That’s correct.

Andrew Schorr:
Okay, so that’s good new for people with atrial fibrillation. They should then be discussing whether newer agents might be appropriate for them.

Dr. Deo:
That’s absolutely right. I think the other important point here is realize that Coumadin certainly is effective in preventing stroke, but it also has risks associated with it, including major bleeding events, and bleeding events requiring transfusion. It turns out, based on the recent data that we were presented with yesterday afternoon, that the novel agents, such as rivaroxaban, appear to have a reduced risk of major complications – major bleeding complications compared to Coumadin.

Andrew Schorr:
Okay, good new for people who need to take a daily medicine to prevent clotting, but yet not have a bleeding problem.

Dr. Deo:
No, absolutely, I believe that there’s very positive news in the electrophysiological community at this point because I am confident that our patients with atrial fibrillation will have choices for anticoagulant therapy besides just Coumadin so it’s very positive news.

Andrew Schorr:
Let’s take this further. There are many people with electrical problems of the heart, rhythm problems, that take an antiarrhythmic, I think you call it, and these medicines have side effects, the thought has been, and now research and the clinical practice, that you can do ablations to make changes in the electrical transmission of the heart so that they don’t need these medicines. Where are we now? I know you do this at Penn.
Dr. Deo:
That’s right. Patients with atrial fibrillation, usually who are symptomatic, have the option of undergoing a pulmonary vein isolation procedure, which is an ablation procedure where we isolate the pulmonary veins from the left atrium so as to dissociate the triggers for atrial fibrillation. These are very effective procedures. We have found them to be very useful, especially in patients who have not responded to at least one antiarrhythmic medication, meaning that –

Andrew Schorr:
You go up through the groin with a catheter and zap a specific point.

Dr. Deo:
That’s right. We essentially – it’s a percutaneous procedure, which means that we put wires and catheters through the groin. We use x-ray technology to guide the position of those catheters, and we place those catheters in the left atrium, and as I said, we create a series of lesions, a series of burns so as to isolate the atrium from the pulmonary veins. As you know, Penn has been involved in many of the fundamental studies to evaluate the safety and efficacy of pulmonary vein isolation procedures. And there are many studies that are continuing and ongoing, but needless to say, we have found this to be an effective method so far in many patients with atrial fibrillation who are not responding to medications.

Andrew Schorr:
Okay, and the medications and the antiarrhythmia medications, maybe those could be alleviated, and then we newer medicines compared to Coumadin, they may benefit from those ongoing as well.

Dr. Deo:
That’s right. We don’t – I think there’s a lot of studies that are pending to evaluate the need and the duration for anticoagulation therapy post an ablation procedure. Needless to say, the novel anticoagulants will certainly be an option in our patient population who has undergone pulmonary vein isolation.

Andrew Schorr:
One other area I know you’ve done a lot study on at Penn is, is there a genetic connection related to arrhythmia? Does it run in families, and if so what do we know and what should someone in a family do?

Dr. Deo:
There are several very important studies that have been presented at American Heart Association including one from our own group. But it does appear – there does appear to be a strong familial link between atrial fibrillation in a family member and the risk of developing incident atrial fibrillation in an individual. So bottom line is family history is
important. There are genetic markers that have been identified that suggest a strong association with atrial fibrillation. But I would just caution one and say that it appears at this time that these are more research applications.

In order words, these are novel – there are novel mutations and novel epidemiologic findings that we need to understand better before we can apply them in clinical risk prediction models.

Andrew Schorr:
Okay, but if, let’s say you go to the doctor, and you had a family member, father or mother who had arrhythmia, that would be something to talk about with the doctor and then potentially be evaluated as there is more research information, maybe some action –

Dr. Deo:
I think that’s an excellent point. I absolutely agree with that. I believe that now we will be asking about a family history of atrial fibrillation more than we have been before given recent data and recent evidence. How we use that information to calculate risk scores, to evaluate therapies, is still up in the air, but I think as more cardiologists and general physicians ask the question, we’ll acquire more data and we’ll be more informed when we make future decisions.

Andrew Schorr:
As the news comes out from continued research in this area of heart rhythm, it’s important that you discuss with your doctor, do these new developments, new medications, new procedures, apply to you. In Chicago, I’m Andrew Schorr.

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