

AHA's National Cardiac Implantable Electronic Device (CIED) Infection Initiative Podcast Series

Episode 2 - Treating Pacemakers and Other Implantable Devices: Case Study Review and Implications

00:00:10:25 - 00:00:35:24

Intro: This podcast is part of the American Heart Association's National Cardiac Implantable Electronic Device or CIED Infection Initiative. The goal of this initiative is to address the gaps in awareness, detection, and appropriate treatment of pacemakers and other implantable device infections. For the latest information about upcoming events and other resources on this topic, please visit heart.org/treat2beatciedinfection.

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Renee Sednew: Dr. Cheung, Anne, we're thrilled to have you here today. Welcome.

00:03:31:27 - 00:03:34:25

Dr. Cheung: It's an absolute pleasure to be here. Thank you so much for having us.

00:03:35:23 - 00:03:37:02

Ann Spalding: Thank you so much, Renee.

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Renee Sednew: Before we review today's case, I'd like to begin by hearing about your roles caring for patients with cardiac implantable electronic devices. Dr. Cheung, let's start with you.

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Dr. Cheung: Sure. As an electrophysiologist at a busy academic center in New York City, I implant all forms of cardiac electronic devices, which include transvenous and venous pacemakers, implantable defibrillators, cardiac resynchronization therapy devices, and other implantable monitoring devices. Our cardiac device clinic at Cornell manages over 5,500 patients with these devices through a combination of in-office visits and remote monitoring. I will oversee the care of a significant proportion of these patients for a long time—from the day they come into my office for consultation talking about undoing a device procedure, to the day they actually have the procedure done, and to the many years that they will return to our offices for follow up.

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Renee Sednew:

of the system actually went fine. That was actually relatively...it was quite straightforward. But due to how infected the pacemaker pocket was, there was a lot of trouble getting the bleeding to stop.

00:10:10:26 - 00:10:53:00

Dr. Cheung: So we actually had to cauterize area extensively. The wound had to be packed open, and so that made it a more challenging procedure. In addition, given that the patient was pacemaker dependent, a temporary transvenous pacing lead was placed, and the patient was monitored over the course of several days. Fortunately for the patient, the bleeding did subside, and eventually, a few days later, the patient had leadless pacemaker implantation and wound closure. And since then, the patient has been doing well at

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Ann Spalding:

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Dr. Cheung: So there were probably concerns that the patient would require a transvenous pacing wire for an extended period of time. So that may have factored into the decision not to remove the device, and I think that the other thing that probably lulled some into thinking that the patient was fine without device removal was the fact that he was afebrile. He still had negative blood cultures and had, you know, just a month prior, had negative transesophageal echo and indium scans, which may have led to the impression that the infection had cleared.

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also awareness from both the patient and provider perspective and all clinicians involved in the case.

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Dr. Cheung: Thank you, Renee. I think that the message that we can gather from this case is that, you know, cardiac devices are lifesaving treatments for our patients. And all those studies show that as our patient population ages, as they live longer, more and more patients are getting these devices. And for each patient who is getting a device they are living longer and longer with them, which is a good thing. And, you know, device infections are still quite infrequent, but it's important to recognize that they can really have devastating consequences for our patients.

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Dr. Cheung: And I think this is an area wher4.6 (o ea w)6.6 5T (n)10Tf0 Tcomntev50.196 0 Td[A]6u6 (05)T ntev55mwr

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Ann Spalding: And of course, and I think I've said this several times at this point, any fluid around an implantable device, pacemaker or defibrillator, needs to be