WEBVTT

NOTE duration: ”01:04:12.202”

NOTE Confidence: 0.83655775

00:08:10.735 --> 00:08:12.194 K. Very good. Okay.

NOTE Confidence: 0.9293232

00:08:12.655 --> 00:08:14.495 K. Welcome, everybody. We'll just

NOTE Confidence: 0.9293232

00:08:14.495 --> 00:08:15.794 kinda kick things off.

NOTE Confidence: 0.92022914

00:08:17.775 --> 00:08:19.715 Hi. And happy New Year.

NOTE Confidence: 0.9847269

00:08:21.534 --> 00:08:22.034 Uh-huh.

NOTE Confidence: 0.9699433

00:08:22.990 --> 00:08:23.810 Let's go here.

NOTE Confidence: 0.9890525

00:08:24.750 --> 00:08:26.050 Just running through,

NOTE Confidence: 0.97199136

00:08:26.430 --> 00:08:28.110 the upcoming schedule. Still kinda

NOTE Confidence: 0.97199136

00:08:28.110 --> 00:08:29.229 working out a few kinks

NOTE Confidence: 0.97199136

00:08:29.229 --> 00:08:30.750 on the upcoming month. Doctor

NOTE Confidence: 0.97199136

00:08:30.750 --> 00:08:32.029 Adiran will be speaking to

NOTE Confidence: 0.97199136

00:08:32.029 --> 00:08:33.730 us, on the new guidelines

NOTE Confidence: 0.86540264

00:08:34.110 --> 00:08:35.630 and then some faculty research

NOTE Confidence: 0.86540264

00:08:35.630 --> 00:08:37.149 meetings, and then Miles Shen

NOTE Confidence: 0.86540264

00:08:37.149 --> 00:08:38.295 will be doing a structural

NOTE Confidence: 0.86540264

00:08:38.295 --> 00:08:39.115 case conference.

NOTE Confidence: 0.98510426

00:08:39.975 --> 00:08:40.855 And then we'll get out

NOTE Confidence: 0.98510426

00:08:40.934 --> 00:08:42.054 as we finalize these last

NOTE Confidence: 0.98510426

00:08:42.054 --> 00:08:43.335 few details of spring semester,

NOTE Confidence: 0.98510426

00:08:43.335 --> 00:08:44.215 we'll also get out the

NOTE Confidence: 0.98510426

00:08:44.215 --> 00:08:45.735 whole semester schedule so you

NOTE Confidence: 0.98510426

00:08:45.735 --> 00:08:46.535 guys have a heads up

NOTE Confidence: 0.98510426

00:08:46.535 --> 00:08:47.835 and then can plan accordingly.

NOTE Confidence: 0.9516168

00:08:49.495 --> 00:08:50.295 And then I will hand

NOTE Confidence: 0.9516168

00:08:50.295 --> 00:08:51.415 things off to doctor Fau

NOTE Confidence: 0.9516168

00:08:51.415 --> 00:08:53.175 who will introduce doctor Khan.

NOTE Confidence: 0.9516168

00:08:53.175 --> 00:08:53.790 Thank you.

NOTE Confidence: 0.8478111

00:09:00.910 --> 00:09:01.809 Thanks, Katherine.

NOTE Confidence: 0.9998689

00:09:02.190 --> 00:09:03.730 It's my great pleasure

NOTE Confidence: 0.98033255

00:09:04.269 --> 00:09:05.949 to introduce doctor Ali Khan

NOTE Confidence: 0.98033255

00:09:05.949 --> 00:09:08.029 as today's cardiovascular medicine grand

NOTE Confidence: 0.98033255

00:09:08.029 --> 00:09:08.850 round speaker.

NOTE Confidence: 0.972092

00:09:10.005 --> 00:09:11.125 Ali is a native of

NOTE Confidence: 0.972092

00:09:11.125 --> 00:09:13.065 Virginia and did his undergraduate

NOTE Confidence: 0.972092

00:09:13.205 --> 00:09:14.325 work at the University of

NOTE Confidence: 0.972092

00:09:14.325 --> 00:09:15.445 Virginia where he was a

NOTE Confidence: 0.972092

00:09:15.445 --> 00:09:16.805 chemistry major, which I was

NOTE Confidence: 0.972092

00:09:16.805 --> 00:09:17.545 quite surprised

NOTE Confidence: 0.99978846

00:09:18.005 --> 00:09:18.905 to find out.

NOTE Confidence: 0.99912727

00:09:19.285 --> 00:09:20.105 Not surprisingly,

NOTE Confidence: 0.93958765

00:09:20.485 --> 00:09:22.405 he won the Merck Award

NOTE Confidence: 0.93958765

00:09:22.405 --> 00:09:23.865 for being the top chemistry

NOTE Confidence: 0.93958765

00:09:24.005 --> 00:09:24.505 student

NOTE Confidence: 0.9833161

00:09:25.110 --> 00:09:27.050 in the undergrad program there.

NOTE Confidence: 0.9833161

00:09:27.350 --> 00:09:29.190 He also won a teaching

NOTE Confidence: 0.9833161

00:09:29.190 --> 00:09:31.370 award for undergraduate chemistry.

NOTE Confidence: 0.97662467

00:09:32.070 --> 00:09:33.350 He stayed at the University

NOTE Confidence: 0.97662467

00:09:33.350 --> 00:09:34.710 of Virginia to do his

NOTE Confidence: 0.97662467

00:09:34.710 --> 00:09:35.690 MD PhD

NOTE Confidence: 0.9970504

00:09:36.390 --> 00:09:36.890 work

NOTE Confidence: 0.99399287

00:09:37.505 --> 00:09:39.505 as a PhD student. His

NOTE Confidence: 0.99399287

00:09:39.505 --> 00:09:40.945 work focused on the structure

NOTE Confidence: 0.99399287

00:09:40.945 --> 00:09:42.485 of gap junction channels

NOTE Confidence: 0.99798363

00:09:43.025 --> 00:09:44.965 in the context of myocardial

NOTE Confidence: 0.99798363

00:09:45.105 --> 00:09:45.605 infarction.

NOTE Confidence: 0.97511494

00:09:47.184 --> 00:09:48.785 He then, came to Yale

NOTE Confidence: 0.97511494

00:09:48.785 --> 00:09:50.565 for his internal medicine residency,

NOTE Confidence: 0.97207946

00:09:51.329 --> 00:09:52.790 where he worked with Rachel

NOTE Confidence: 0.97207946

00:09:52.850 --> 00:09:54.690 Lampert looking at the effects

NOTE Confidence: 0.97207946

00:09:54.690 --> 00:09:56.209 of atrial fibrillation and atrial

NOTE Confidence: 0.97207946

00:09:56.209 --> 00:09:57.190 fibrillation treatments

NOTE Confidence: 0.99844646

00:09:57.730 --> 00:09:59.429 on athlete performance.

NOTE Confidence: 0.9683488

00:10:00.290 --> 00:10:01.329 And then, of course, he

NOTE Confidence: 0.9683488

00:10:01.329 --> 00:10:03.190 stayed for his cardiology fellowship.

NOTE Confidence: 0.9124484

00:10:04.075 --> 00:10:04.975 And interestingly,

NOTE Confidence: 0.9125702

00:10:06.235 --> 00:10:08.415 is working with, Joel Butterwick

NOTE Confidence: 0.9125702

00:10:08.475 --> 00:10:10.335 from the Department of Pharmacology

NOTE Confidence: 0.99531937

00:10:11.035 --> 00:10:12.415 on the molecular structure

NOTE Confidence: 0.9659522

00:10:13.115 --> 00:10:14.715 of this is hard for

NOTE Confidence: 0.9659522

00:10:14.715 --> 00:10:15.995 me as an interventionist to

NOTE Confidence: 0.9659522

00:10:15.995 --> 00:10:16.735 say. Okay?

NOTE Confidence: 0.9967867

00:10:17.440 --> 00:10:19.780 Human cardiac rapid delayed rectifier

NOTE Confidence: 0.9967867

00:10:19.840 --> 00:10:20.980 potassium channels

NOTE Confidence: 0.98149145

00:10:21.840 --> 00:10:23.860 bound to class three antiarrhythmics

NOTE Confidence: 0.7572067

00:10:24.640 --> 00:10:25.300 to understand,

NOTE Confidence: 0.99754727

00:10:26.000 --> 00:10:28.100 the functional effects of antiarrhythmics

NOTE Confidence: 0.9095533

00:10:28.480 --> 00:10:29.060 and perhaps

NOTE Confidence: 0.9978898

00:10:29.465 --> 00:10:30.605 to design antiarrhythmics

NOTE Confidence: 0.9988903

00:10:30.985 --> 00:10:31.645 as well.

NOTE Confidence: 0.98171705

00:10:32.025 --> 00:10:32.525 So,

NOTE Confidence: 0.994821

00:10:33.065 --> 00:10:34.665 without further ado, Ali, thank

NOTE Confidence: 0.994821

00:10:34.665 --> 00:10:35.865 you very much, and we're

NOTE Confidence: 0.994821

00:10:35.865 --> 00:10:37.725 looking forward to your discussion.

NOTE Confidence: 0.91427284

00:10:50.809 --> 00:10:51.929 Thanks, doctor Pha, for that

NOTE Confidence: 0.91427284

00:10:51.929 --> 00:10:53.690 kind introduction. Thank you for

NOTE Confidence: 0.91427284

00:10:53.690 --> 00:10:54.190 everyone

NOTE Confidence: 0.983422

00:10:55.045 --> 00:10:56.645 attending our clinical grand rounds

NOTE Confidence: 0.983422

00:10:56.645 --> 00:10:57.385 case presentation.

NOTE Confidence: 0.9548378

00:10:57.845 --> 00:10:59.445 Today, our case comes from

NOTE Confidence: 0.9548378

00:10:59.445 --> 00:11:01.125 the Connecticut VA health care

NOTE Confidence: 0.9548378

00:11:01.125 --> 00:11:01.625 system.

NOTE Confidence: 0.9348887

00:11:03.045 --> 00:11:04.645 I'll be presenting a real

NOTE Confidence: 0.9348887

00:11:05.125 --> 00:11:06.745 really interesting and

NOTE Confidence: 0.9870057

00:11:07.125 --> 00:11:08.745 unusual case of an enlarging

NOTE Confidence: 0.9870057

00:11:08.804 --> 00:11:10.105 left ventricular aneurysm.

NOTE Confidence: 0.98425823

00:11:11.330 --> 00:11:12.610 In addition, we're also gonna

NOTE Confidence: 0.98425823

00:11:12.610 --> 00:11:13.110 have,

NOTE Confidence: 0.99182755

00:11:14.130 --> 00:11:15.490 experts joining us today, which

NOTE Confidence: 0.99182755

00:11:15.490 --> 00:11:16.690 will also be teaching us

NOTE Confidence: 0.99182755

00:11:16.690 --> 00:11:17.750 on the various nuances

NOTE Confidence: 0.98958915

00:11:18.450 --> 00:11:19.650 in terms of the imaging,

NOTE Confidence: 0.98958915

00:11:19.650 --> 00:11:21.090 and we'll also discuss surgical

NOTE Confidence: 0.98958915

00:11:21.090 --> 00:11:21.590 management.

NOTE Confidence: 0.99971074

00:11:22.690 --> 00:11:24.790 Our learning objectives today include

NOTE Confidence: 0.99956894

00:11:25.514 --> 00:11:27.694 to review the imaging findings

NOTE Confidence: 0.91893643

00:11:28.714 --> 00:11:30.554 of LV apical aneurysms with

NOTE Confidence: 0.91893643

00:11:30.554 --> 00:11:31.934 echo CT and MRI.

NOTE Confidence: 0.99457645

00:11:33.115 --> 00:11:34.815 We'll also discuss the management,

NOTE Confidence: 0.99931115

00:11:35.675 --> 00:11:37.434 and discuss the management of

NOTE Confidence: 0.99931115

00:11:37.434 --> 00:11:38.334 LV aneurysms.

NOTE Confidence: 0.9944004

00:11:40.570 --> 00:11:41.450 Now this is a case

NOTE Confidence: 0.9944004

00:11:41.450 --> 00:11:43.150 that spans a little over

NOTE Confidence: 0.9944004

00:11:43.210 --> 00:11:44.170 two and a half years.

NOTE Confidence: 0.9944004

00:11:44.170 --> 00:11:45.450 So to orient everyone to

NOTE Confidence: 0.9944004

00:11:45.450 --> 00:11:46.110 the presentation,

NOTE Confidence: 0.9915525

00:11:46.490 --> 00:11:47.770 I'll be focusing on three

NOTE Confidence: 0.9915525

00:11:47.770 --> 00:11:49.870 periods. First, the initial hospitalization,

NOTE Confidence: 0.978134

00:11:50.890 --> 00:11:52.650 then the outpatient management, which

NOTE Confidence: 0.978134

00:11:52.650 --> 00:11:54.250 was primarily in the VA

NOTE Confidence: 0.978134

00:11:54.250 --> 00:11:56.394 system, and then surgical management,

NOTE Confidence: 0.978134

00:11:56.394 --> 00:11:57.355 which was a joint effort

NOTE Confidence: 0.978134

00:11:57.355 --> 00:11:58.815 between the West Haven VA

NOTE Confidence: 0.9163867

00:11:59.434 --> 00:12:00.815 and Yale New Haven Hospital.

NOTE Confidence: 0.9942271

00:12:03.915 --> 00:12:04.815 So our case,

NOTE Confidence: 0.99833935

00:12:05.834 --> 00:12:07.355 goes to February twenty twenty

NOTE Confidence: 0.99833935

00:12:07.355 --> 00:12:07.855 three.

NOTE Confidence: 0.9575314

00:12:08.240 --> 00:12:09.199 This our patient is a

NOTE Confidence: 0.9575314

00:12:09.199 --> 00:12:10.399 sixty six year old female

NOTE Confidence: 0.9575314

00:12:10.399 --> 00:12:10.899 veteran

NOTE Confidence: 0.95403016

00:12:11.360 --> 00:12:12.559 with a three day history

NOTE Confidence: 0.95403016

00:12:12.559 --> 00:12:14.819 of fatigue and unwitnessed fall

NOTE Confidence: 0.95403016

00:12:14.879 --> 00:12:16.240 and also with chest pain

NOTE Confidence: 0.95403016

00:12:16.240 --> 00:12:17.779 two days prior who presented

NOTE Confidence: 0.99676967

00:12:18.240 --> 00:12:19.860 as an EMS STEMI activation

NOTE Confidence: 0.99676967

00:12:20.079 --> 00:12:21.300 from an outside hospital.

NOTE Confidence: 0.9888115

00:12:22.475 --> 00:12:24.074 Her past medical history has

NOTE Confidence: 0.9888115

00:12:24.074 --> 00:12:26.074 multiple cardiovascular risk factors, including

NOTE Confidence: 0.9888115

00:12:26.074 --> 00:12:27.054 diabetes, hyperlipidemia,

NOTE Confidence: 0.9792324

00:12:27.595 --> 00:12:29.274 chronic kidney disease, and active

NOTE Confidence: 0.9792324

00:12:29.274 --> 00:12:29.774 smoking,

NOTE Confidence: 0.95633644

00:12:31.195 --> 00:12:32.175 as well as,

NOTE Confidence: 0.99060464

00:12:33.595 --> 00:12:35.514 pulmonary nodules, bipolar disorder, and

NOTE Confidence: 0.99060464

00:12:35.514 --> 00:12:36.014 PTSD.

NOTE Confidence: 0.95644474

00:12:36.420 --> 00:12:37.860 She does not have any

NOTE Confidence: 0.95644474

00:12:37.860 --> 00:12:39.380 prior cardiac surgeries nor does

NOTE Confidence: 0.95644474

00:12:39.380 --> 00:12:40.339 she have a family history

NOTE Confidence: 0.95644474

00:12:40.339 --> 00:12:41.540 of heart disease at baseline.

NOTE Confidence: 0.95644474

00:12:41.540 --> 00:12:43.700 She's an she's independent and

NOTE Confidence: 0.95644474

00:12:43.700 --> 00:12:44.580 able to perform all of

NOTE Confidence: 0.95644474

00:12:44.580 --> 00:12:45.240 her ADLs.

NOTE Confidence: 0.99819756

00:12:47.059 --> 00:12:48.899 This is her presenting EKG,

NOTE Confidence: 0.85042095

00:12:50.605 --> 00:12:52.524 which shows ST elevations into

NOTE Confidence: 0.85042095

00:12:52.524 --> 00:12:53.024 anterolateral

NOTE Confidence: 0.9175794

00:12:53.485 --> 00:12:54.464 inferior leads

NOTE Confidence: 0.6857565

00:12:54.845 --> 00:12:55.345 suggestive

NOTE Confidence: 0.9853277

00:12:55.804 --> 00:12:57.745 of an extensive infarct.

NOTE Confidence: 0.9299263

00:13:00.444 --> 00:13:02.225 Her physical exam was significant

NOTE Confidence: 0.9299263

00:13:02.285 --> 00:13:02.944 for Raul's

NOTE Confidence: 0.97177505

00:13:03.500 --> 00:13:05.019 and weak peripheral pulses. She

NOTE Confidence: 0.97177505

00:13:05.019 --> 00:13:05.760 was hypotensive,

NOTE Confidence: 0.96555966

00:13:06.139 --> 00:13:08.300 requiring presser support. Her initial

NOTE Confidence: 0.96555966

00:13:08.300 --> 00:13:10.700 laboratory workup showed markedly elevated

NOTE Confidence: 0.96555966

00:13:10.700 --> 00:13:12.079 high sensitivity troponins,

NOTE Confidence: 0.88840663

00:13:13.420 --> 00:13:16.000 elevate BNP, lactic acid, AST,

NOTE Confidence: 0.98078465

00:13:16.380 --> 00:13:17.040 and acute

NOTE Confidence: 0.93967867

00:13:17.454 --> 00:13:19.135 kidney injury all concerning for

NOTE Confidence: 0.93967867

00:13:19.135 --> 00:13:21.535 cardiogenic shock. In addition, in

NOTE Confidence: 0.93967867

00:13:21.535 --> 00:13:23.295 the emergency room, she had

NOTE Confidence: 0.93967867

00:13:23.295 --> 00:13:24.495 a point of care ultrasound

NOTE Confidence: 0.93967867

00:13:24.495 --> 00:13:25.695 that showed severe apical a

NOTE Confidence: 0.93967867

00:13:25.695 --> 00:13:27.315 kinesis and possible thrombus

NOTE Confidence: 0.9757441

00:13:27.695 --> 00:13:28.995 at the LV apex.

NOTE Confidence: 0.98216754

00:13:30.559 --> 00:13:32.020 The cath lab was activated.

NOTE Confidence: 0.98216754

00:13:32.320 --> 00:13:33.940 Here's a coronary angiogram

NOTE Confidence: 0.9236161

00:13:34.640 --> 00:13:36.340 of the left coronary arteries

NOTE Confidence: 0.9236161

00:13:36.559 --> 00:13:37.059 system.

NOTE Confidence: 0.81496847

00:13:37.760 --> 00:13:38.260 And,

NOTE Confidence: 0.98658496

00:13:40.559 --> 00:13:41.440 and I want you to

NOTE Confidence: 0.98658496

00:13:41.440 --> 00:13:42.880 appreciate that she had total

NOTE Confidence: 0.98658496

00:13:42.880 --> 00:13:44.240 occlusion of the proximal left

NOTE Confidence: 0.98658496

00:13:44.240 --> 00:13:45.620 anterior descending artery.

NOTE Confidence: 0.97983605

00:13:46.905 --> 00:13:48.905 Here's now a a caudal

NOTE Confidence: 0.97983605

00:13:48.905 --> 00:13:50.205 shot of the left system,

NOTE Confidence: 0.97983605

00:13:50.345 --> 00:13:51.865 which, you can appreciate it

NOTE Confidence: 0.97983605

00:13:51.865 --> 00:13:52.765 a little better.

NOTE Confidence: 0.9433104

00:13:55.145 --> 00:13:56.665 And, again, seeing that where

NOTE Confidence: 0.9433104

00:13:56.665 --> 00:13:58.105 there should be a branch

NOTE Confidence: 0.9433104

00:13:58.105 --> 00:13:59.465 for the left anterior descending

NOTE Confidence: 0.9433104

00:13:59.465 --> 00:14:00.525 artery is a big occlusion.

NOTE Confidence: 0.966872

00:14:03.670 --> 00:14:05.589 There's no significant stenosis in

NOTE Confidence: 0.966872

00:14:05.589 --> 00:14:06.570 any other vessel.

NOTE Confidence: 0.99178064

00:14:08.870 --> 00:14:10.309 She also had no collateral

NOTE Confidence: 0.99178064

00:14:10.309 --> 00:14:11.769 flow coming to this region,

NOTE Confidence: 0.9691296

00:14:12.149 --> 00:14:13.510 this region of the heart.

NOTE Confidence: 0.9691296

00:14:13.750 --> 00:14:14.410 The interventionalist

NOTE Confidence: 0.9921711

00:14:14.790 --> 00:14:16.204 at the outside hospital

NOTE Confidence: 0.999283

00:14:16.745 --> 00:14:18.125 attempted balloon angioplasty,

NOTE Confidence: 0.98357123

00:14:19.065 --> 00:14:19.964 but were unsuccessful.

NOTE Confidence: 0.99961096

00:14:20.745 --> 00:14:21.245 She

NOTE Confidence: 0.9804085

00:14:21.704 --> 00:14:23.144 had an intra aortic balloon

NOTE Confidence: 0.9804085

00:14:23.144 --> 00:14:24.264 pump that was placed, and

NOTE Confidence: 0.9804085

00:14:24.264 --> 00:14:25.384 then she was transferred here

NOTE Confidence: 0.9804085

00:14:25.384 --> 00:14:26.125 to Yale.

NOTE Confidence: 0.9092552

00:14:28.620 --> 00:14:29.740 For NPA, she was admitted

NOTE Confidence: 0.9092552

00:14:29.740 --> 00:14:31.340 to the cardiothoracic ICU service

NOTE Confidence: 0.9092552

00:14:31.340 --> 00:14:32.000 on pressors

NOTE Confidence: 0.9841617

00:14:32.460 --> 00:14:33.740 and evaluated by our heart

NOTE Confidence: 0.9841617

00:14:33.740 --> 00:14:35.280 failure team for advanced therapies.

NOTE Confidence: 0.90559775

00:14:36.060 --> 00:14:37.100 She had a Swan Ganz

NOTE Confidence: 0.90559775

00:14:37.100 --> 00:14:38.780 catheter placed, a mixed venous

NOTE Confidence: 0.90559775

00:14:38.780 --> 00:14:39.680 o two saturation,

NOTE Confidence: 0.88792557

00:14:40.955 --> 00:14:42.235 was in the normal race

NOTE Confidence: 0.88792557

00:14:42.235 --> 00:14:43.835 likely corresponding to a missed

NOTE Confidence: 0.88792557

00:14:43.835 --> 00:14:46.015 cardiogenic and distributed shock picture.

NOTE Confidence: 0.9696473

00:14:47.515 --> 00:14:50.175 Her initial echo showed an

NOTE Confidence: 0.8860182

00:14:51.195 --> 00:14:52.955 estimated ejection fraction of thirty

NOTE Confidence: 0.8860182

00:14:52.955 --> 00:14:53.610 five percent

NOTE Confidence: 0.9196881

00:14:54.570 --> 00:14:56.250 with apical a and anterior

NOTE Confidence: 0.9196881

00:14:56.250 --> 00:14:57.690 a kinesis consistent with her

NOTE Confidence: 0.9196881

00:14:57.690 --> 00:14:59.050 LAD infarct and a large

NOTE Confidence: 0.9196881

00:14:59.050 --> 00:15:00.730 mural thrombus measuring three point

NOTE Confidence: 0.9196881

00:15:00.730 --> 00:15:01.690 one by one point two

NOTE Confidence: 0.9196881

00:15:01.690 --> 00:15:02.190 centimeters.

NOTE Confidence: 0.95213664

00:15:05.050 --> 00:15:06.170 She had a fairly prolonged

NOTE Confidence: 0.95213664

00:15:06.170 --> 00:15:07.149 hospital course.

NOTE Confidence: 0.8273077

00:15:09.265 --> 00:15:10.385 And the first couple of

NOTE Confidence: 0.8273077

00:15:10.385 --> 00:15:12.005 days, she developed Pseudomonas, Bacteremia,

NOTE Confidence: 0.8273077

00:15:12.145 --> 00:15:13.045 coli, UTI,

NOTE Confidence: 0.9966989

00:15:13.425 --> 00:15:14.964 requiring IV antibiotics.

NOTE Confidence: 0.99239933

00:15:15.584 --> 00:15:16.865 She was difficult to wean

NOTE Confidence: 0.99239933

00:15:16.865 --> 00:15:17.605 off oppressors.

NOTE Confidence: 0.96693826

00:15:19.745 --> 00:15:21.425 She was extubated day five.

NOTE Confidence: 0.96693826

00:15:21.425 --> 00:15:22.565 And given the persistent

NOTE Confidence: 0.9987941

00:15:23.024 --> 00:15:23.524 shock,

NOTE Confidence: 0.9417417

00:15:25.320 --> 00:15:27.800 repeat coronary angiogram was again

NOTE Confidence: 0.9417417

00:15:27.800 --> 00:15:29.500 performed and just redemonstrated

NOTE Confidence: 0.9865071

00:15:29.880 --> 00:15:31.020 the occluded LAD

NOTE Confidence: 0.8828925

00:15:31.640 --> 00:15:33.020 not amenable to PCI.

NOTE Confidence: 0.9274144

00:15:35.720 --> 00:15:37.080 She started to have atrial

NOTE Confidence: 0.9274144

00:15:37.080 --> 00:15:38.680 fibrillation with RVR, also had

NOTE Confidence: 0.9274144

00:15:38.680 --> 00:15:40.334 a high PVC burden started

NOTE Confidence: 0.9274144

00:15:40.334 --> 00:15:40.995 on amiodarone,

NOTE Confidence: 0.9981067

00:15:42.495 --> 00:15:43.954 started to improve after

NOTE Confidence: 0.95822555

00:15:44.334 --> 00:15:45.855 a week and had her

NOTE Confidence: 0.95822555

00:15:45.855 --> 00:15:47.134 balloon pump removed on day

NOTE Confidence: 0.95822555

00:15:47.134 --> 00:15:48.035 eight of her hospitalization.

NOTE Confidence: 0.88125193

00:15:49.055 --> 00:15:50.754 Her pressers were weaned off,

NOTE Confidence: 0.99438965

00:15:51.214 --> 00:15:52.415 and she was transitioned to

NOTE Confidence: 0.99438965

00:15:52.415 --> 00:15:54.435 oral antibiotics on day ten.

NOTE Confidence: 0.97086567

00:15:55.270 --> 00:15:56.550 Advanced therapies in the setting

NOTE Confidence: 0.97086567

00:15:56.550 --> 00:15:58.470 of the her recovery and

NOTE Confidence: 0.97086567

00:15:58.470 --> 00:15:59.910 infection was then deferred to

NOTE Confidence: 0.97086567

00:15:59.910 --> 00:16:01.130 the outpatient setting.

NOTE Confidence: 0.9026725

00:16:02.790 --> 00:16:03.670 Two weeks since she had

NOTE Confidence: 0.9026725

00:16:03.670 --> 00:16:05.430 a repeated echo, showed that

NOTE Confidence: 0.9026725

00:16:05.430 --> 00:16:08.175 her EF was relatively unchanged

NOTE Confidence: 0.9026725

00:16:08.334 --> 00:16:09.455 with the kinesis of the

NOTE Confidence: 0.9026725

00:16:09.455 --> 00:16:10.355 LED teratarpy,

NOTE Confidence: 0.9736939

00:16:10.975 --> 00:16:13.055 and then showed this mural

NOTE Confidence: 0.9736939

00:16:13.055 --> 00:16:14.575 thrombus measuring four point four

NOTE Confidence: 0.9736939

00:16:14.575 --> 00:16:16.095 centimeters by one point one

NOTE Confidence: 0.9736939

00:16:16.095 --> 00:16:16.595 centimeters.

NOTE Confidence: 0.97498137

00:16:18.255 --> 00:16:19.935 On day eighteen, she was

NOTE Confidence: 0.97498137

00:16:19.935 --> 00:16:21.214 discharged from the hospital on

NOTE Confidence: 0.97498137

00:16:21.214 --> 00:16:22.274 aspirin, eliquis,

NOTE Confidence: 0.9792731

00:16:22.700 --> 00:16:24.460 and amiodarone to a rehab

NOTE Confidence: 0.9792731

00:16:24.460 --> 00:16:26.220 facility and to follow-up with

NOTE Confidence: 0.9792731

00:16:26.220 --> 00:16:28.640 the v, VA cardiology team.

NOTE Confidence: 0.97902954

00:16:29.020 --> 00:16:30.400 We were unable to start

NOTE Confidence: 0.97902954

00:16:30.460 --> 00:16:32.000 GDMT due to hypotension.

NOTE Confidence: 0.9640364

00:16:35.615 --> 00:16:37.214 Now in rehab, she was

NOTE Confidence: 0.9640364

00:16:37.214 --> 00:16:39.055 then seen by doctor Charles

NOTE Confidence: 0.9640364

00:16:39.055 --> 00:16:40.335 Phillips in the Newington VA

NOTE Confidence: 0.9640364

00:16:40.335 --> 00:16:41.475 Cardiology Clinic.

NOTE Confidence: 0.9586469

00:16:42.175 --> 00:16:43.455 Over the next several months,

NOTE Confidence: 0.9586469

00:16:43.455 --> 00:16:44.495 she had symptoms of mild

NOTE Confidence: 0.9586469

00:16:44.495 --> 00:16:46.595 dyspnea class you know, NYHA

NOTE Confidence: 0.9586469

00:16:46.815 --> 00:16:47.555 class two

NOTE Confidence: 0.94441617

00:16:49.480 --> 00:16:49.980 classification.

NOTE Confidence: 0.92272204

00:16:51.560 --> 00:16:53.080 She was requiring Midadrine for

NOTE Confidence: 0.92272204

00:16:53.080 --> 00:16:55.000 hypotension, which made which along

NOTE Confidence: 0.92272204

00:16:55.000 --> 00:16:56.280 with her kidney function made

NOTE Confidence: 0.92272204

00:16:56.280 --> 00:16:57.980 GDMT difficult to titrate.

NOTE Confidence: 0.9989834

00:17:01.425 --> 00:17:02.385 She had a series of

NOTE Confidence: 0.9989834

00:17:02.385 --> 00:17:02.885 echocardiograms

NOTE Confidence: 0.98707306

00:17:03.265 --> 00:17:04.405 then during this period.

NOTE Confidence: 0.99046457

00:17:05.585 --> 00:17:07.684 The first one, which was

NOTE Confidence: 0.99978364

00:17:07.984 --> 00:17:08.804 two months

NOTE Confidence: 0.9474504

00:17:09.345 --> 00:17:10.565 after she was discharged,

NOTE Confidence: 0.91929555

00:17:10.945 --> 00:17:11.445 showed,

NOTE Confidence: 0.95873255

00:17:12.705 --> 00:17:14.960 an unchanged ejection fraction around

NOTE Confidence: 0.95873255

00:17:14.960 --> 00:17:16.480 thirty five percent, but there

NOTE Confidence: 0.95873255

00:17:16.480 --> 00:17:18.020 were signs of apical remodeling

NOTE Confidence: 0.95873255

00:17:18.160 --> 00:17:19.359 as the entire apex was

NOTE Confidence: 0.95873255

00:17:19.359 --> 00:17:20.020 not aneurysmal.

NOTE Confidence: 0.9733238

00:17:21.440 --> 00:17:22.560 However, there was no signs

NOTE Confidence: 0.9733238

00:17:22.560 --> 00:17:23.619 of LV thrombus.

NOTE Confidence: 0.98462594

00:17:24.640 --> 00:17:25.600 And what I have shown

NOTE Confidence: 0.98462594

00:17:25.600 --> 00:17:26.980 here is the noncontrasted

NOTE Confidence: 0.77128506

00:17:27.280 --> 00:17:27.780 images,

NOTE Confidence: 0.921381

00:17:29.494 --> 00:17:31.015 and the different apical views

NOTE Confidence: 0.921381

00:17:31.015 --> 00:17:31.895 and then under it, the

NOTE Confidence: 0.921381

00:17:31.895 --> 00:17:33.595 corresponding contrast images.

NOTE Confidence: 0.7701814

00:17:34.055 --> 00:17:34.875 Now get

NOTE Confidence: 0.9872422

00:17:35.655 --> 00:17:36.155 despite,

NOTE Confidence: 0.98600674

00:17:36.855 --> 00:17:37.975 given the evidence of the

NOTE Confidence: 0.98600674

00:17:37.975 --> 00:17:40.055 continued remodeling, shared decision making

NOTE Confidence: 0.98600674

00:17:40.055 --> 00:17:40.875 with the patient,

NOTE Confidence: 0.9845907

00:17:42.500 --> 00:17:43.619 Her it was decided to

NOTE Confidence: 0.9845907

00:17:43.619 --> 00:17:44.840 continue her anticoagulation.

NOTE Confidence: 0.88002145

00:17:47.300 --> 00:17:48.920 She then had another echocardiogram.

NOTE Confidence: 0.98141277

00:17:50.180 --> 00:17:51.220 This is now seven months

NOTE Confidence: 0.98141277

00:17:51.220 --> 00:17:53.240 post her hospitalization for consideration

NOTE Confidence: 0.98141277

00:17:53.300 --> 00:17:55.000 of a primary prevention ICD.

NOTE Confidence: 0.9091278

00:17:55.825 --> 00:17:57.505 Her EF was unchanged, but

NOTE Confidence: 0.9091278

00:17:57.505 --> 00:17:59.105 the apical aneurysm of prearrant

NOTE Confidence: 0.9091278

00:17:59.105 --> 00:18:00.385 increased in size. Now measuring

NOTE Confidence: 0.9091278

00:18:00.385 --> 00:18:01.505 three point eight by three

NOTE Confidence: 0.9091278

00:18:01.505 --> 00:18:02.405 point one centimeters

NOTE Confidence: 0.933125

00:18:03.185 --> 00:18:04.785 on her, compared to five

NOTE Confidence: 0.933125

00:18:04.785 --> 00:18:05.605 months prior.

NOTE Confidence: 0.9506143

00:18:07.025 --> 00:18:08.625 There still continued to be

NOTE Confidence: 0.9506143

00:18:08.625 --> 00:18:09.905 no signs of contrast, but

NOTE Confidence: 0.9506143

00:18:09.905 --> 00:18:11.345 of note, contrast wasn't used

NOTE Confidence: 0.9506143

00:18:11.345 --> 00:18:12.290 in this particular,

NOTE Confidence: 0.9990531

00:18:12.830 --> 00:18:13.330 study.

NOTE Confidence: 0.9751043

00:18:17.310 --> 00:18:18.350 Given these findings, I just

NOTE Confidence: 0.9751043

00:18:18.350 --> 00:18:19.390 wanna take a moment to

NOTE Confidence: 0.9751043

00:18:19.390 --> 00:18:20.210 sort of review,

NOTE Confidence: 0.99642795

00:18:21.070 --> 00:18:21.970 LV aneurysms.

NOTE Confidence: 0.93189925

00:18:23.230 --> 00:18:24.830 They most commonly occur after

NOTE Confidence: 0.93189925

00:18:24.830 --> 00:18:25.410 a transmural,

NOTE Confidence: 0.96640015

00:18:26.725 --> 00:18:28.585 my acute myocardial infarction,

NOTE Confidence: 0.90624917

00:18:29.524 --> 00:18:31.125 due to LV remodeling. In

NOTE Confidence: 0.90624917

00:18:31.125 --> 00:18:31.865 this process,

NOTE Confidence: 0.9995257

00:18:32.404 --> 00:18:33.145 the infarction

NOTE Confidence: 0.99562895

00:18:33.924 --> 00:18:34.424 leads

NOTE Confidence: 0.98602515

00:18:35.524 --> 00:18:37.625 to fibrosis of the necrotic

NOTE Confidence: 0.98602515

00:18:37.765 --> 00:18:38.265 tissue.

NOTE Confidence: 0.96016604

00:18:39.130 --> 00:18:42.190 The infarcted myocardial myocardial undergoes

NOTE Confidence: 0.96016604

00:18:42.250 --> 00:18:42.750 thinning

NOTE Confidence: 0.9771027

00:18:43.290 --> 00:18:44.590 and loses contractility.

NOTE Confidence: 0.9765607

00:18:44.890 --> 00:18:46.650 The wall stress against this

NOTE Confidence: 0.9765607

00:18:46.650 --> 00:18:47.710 this thin wall

NOTE Confidence: 0.90522385

00:18:48.250 --> 00:18:50.410 undergoes dilation reading through this

NOTE Confidence: 0.90522385

00:18:50.410 --> 00:18:52.190 classical aneurysm bulging.

NOTE Confidence: 0.9984545

00:18:53.545 --> 00:18:54.665 Depending on the degree of

NOTE Confidence: 0.9984545

00:18:54.665 --> 00:18:55.645 aneurysm formation,

NOTE Confidence: 0.9948629

00:18:56.744 --> 00:18:58.445 several complications can arise.

NOTE Confidence: 0.98353875

00:19:00.265 --> 00:19:02.045 It can decrease the

NOTE Confidence: 0.9790713

00:19:02.505 --> 00:19:04.185 LV ejection fraction and lead

NOTE Confidence: 0.9790713

00:19:04.185 --> 00:19:05.405 to heart failure symptoms.

NOTE Confidence: 0.9474458

00:19:07.130 --> 00:19:08.250 Due to blood pooling and

NOTE Confidence: 0.9474458

00:19:08.250 --> 00:19:10.330 stasis in the aneurysmal segment,

NOTE Confidence: 0.9474458

00:19:10.330 --> 00:19:11.390 thrombus can form.

NOTE Confidence: 0.9981324

00:19:12.730 --> 00:19:13.230 The

NOTE Confidence: 0.9986909

00:19:13.770 --> 00:19:15.390 dilation and lack of contractility

NOTE Confidence: 0.99853325

00:19:16.250 --> 00:19:17.710 to the scarred segment

NOTE Confidence: 0.99259216

00:19:18.250 --> 00:19:19.470 can lead to myocardial,

NOTE Confidence: 0.99505657

00:19:19.929 --> 00:19:21.309 to mitral valve dysfunction.

NOTE Confidence: 0.9301023

00:19:22.205 --> 00:19:24.285 And then certainly because of

NOTE Confidence: 0.9301023

00:19:24.285 --> 00:19:25.825 the heavy scar burn, this

NOTE Confidence: 0.9301023

00:19:26.045 --> 00:19:27.484 this region can be a

NOTE Confidence: 0.9301023

00:19:27.484 --> 00:19:29.265 substrate for ventricular arrhythmias.

NOTE Confidence: 0.9809036

00:19:29.805 --> 00:19:31.645 Fortunately, the incidence of LV

NOTE Confidence: 0.9809036

00:19:31.645 --> 00:19:33.265 aneurysm has greatly decreased,

NOTE Confidence: 0.99591064

00:19:33.645 --> 00:19:34.145 over

NOTE Confidence: 0.9095438

00:19:34.930 --> 00:19:35.890 the over the past few

NOTE Confidence: 0.9095438

00:19:35.890 --> 00:19:38.070 decades. In thrombolytic era, incidence

NOTE Confidence: 0.9095438

00:19:38.130 --> 00:19:39.330 was measured for as low

NOTE Confidence: 0.9095438

00:19:39.330 --> 00:19:41.190 seventeen up to nineteen percent.

NOTE Confidence: 0.9934936

00:19:41.570 --> 00:19:42.530 And now in the current

NOTE Confidence: 0.9934936

00:19:42.530 --> 00:19:43.670 PCI era,

NOTE Confidence: 0.9970947

00:19:44.609 --> 00:19:45.890 is about is less than

NOTE Confidence: 0.9970947

00:19:45.890 --> 00:19:46.630 five percent.

NOTE Confidence: 0.99810445

00:19:49.885 --> 00:19:50.924 Management is

NOTE Confidence: 0.97858864

00:19:51.484 --> 00:19:53.665 of these aneurysms is dictated

NOTE Confidence: 0.97858864

00:19:53.725 --> 00:19:54.465 by complications.

NOTE Confidence: 0.98624545

00:19:56.445 --> 00:19:57.725 So here's sort of a

NOTE Confidence: 0.98624545

00:19:57.725 --> 00:19:58.865 chart that I adapted.

NOTE Confidence: 0.98960656

00:20:01.005 --> 00:20:02.304 If you have heart failure

NOTE Confidence: 0.9798689

00:20:03.190 --> 00:20:04.650 symptoms and LV dysfunction,

NOTE Confidence: 0.92589897

00:20:05.430 --> 00:20:06.630 you're gonna elect for guide

NOTE Confidence: 0.92589897

00:20:06.790 --> 00:20:08.710 you know, guideline directed medical

NOTE Confidence: 0.92589897

00:20:08.710 --> 00:20:10.730 therapy. Certainly, if there's

NOTE Confidence: 0.99625283

00:20:11.109 --> 00:20:11.609 revascularization

NOTE Confidence: 0.933979

00:20:12.710 --> 00:20:14.230 or ischemic territory that can

NOTE Confidence: 0.933979

00:20:14.230 --> 00:20:15.590 be revascularized, you would consider

NOTE Confidence: 0.933979

00:20:15.590 --> 00:20:16.730 PCI or CABG.

NOTE Confidence: 0.9501609

00:20:19.515 --> 00:20:21.115 If there's mitral regurgitation, you

NOTE Confidence: 0.9501609

00:20:21.115 --> 00:20:23.195 can try medical management, reduce

NOTE Confidence: 0.9501609

00:20:23.195 --> 00:20:25.054 the afterload with ACE inhibitors

NOTE Confidence: 0.92103004

00:20:26.234 --> 00:20:27.054 or ARBs.

NOTE Confidence: 0.9972314

00:20:27.835 --> 00:20:28.335 If

NOTE Confidence: 0.9600819

00:20:28.715 --> 00:20:30.315 there's if there's evidence of

NOTE Confidence: 0.9600819

00:20:30.315 --> 00:20:30.815 thromboembolism,

NOTE Confidence: 0.8239995

00:20:31.930 --> 00:20:33.710 vitamin k antagonists or DOACs,

NOTE Confidence: 0.9068434

00:20:34.650 --> 00:20:36.330 can be used. And if

NOTE Confidence: 0.9068434

00:20:36.410 --> 00:20:38.109 certainly, if there's ventricular arrhythmias,

NOTE Confidence: 0.9068434

00:20:38.330 --> 00:20:40.170 aneurythmic drug therapy or ablation

NOTE Confidence: 0.9068434

00:20:40.170 --> 00:20:41.450 should be considered and in

NOTE Confidence: 0.9068434

00:20:41.450 --> 00:20:43.230 appropriate patients that meet indications,

NOTE Confidence: 0.84636825

00:20:44.090 --> 00:20:45.470 an ICD placed.

NOTE Confidence: 0.92961776

00:20:46.275 --> 00:20:47.955 Now if these sort these

NOTE Confidence: 0.92961776

00:20:47.955 --> 00:20:48.855 measures fail,

NOTE Confidence: 0.9945573

00:20:49.795 --> 00:20:50.675 that's when we have to

NOTE Confidence: 0.9945573

00:20:50.675 --> 00:20:52.595 start considering surgical repair of

NOTE Confidence: 0.9945573

00:20:52.595 --> 00:20:53.255 the aneurysm.

NOTE Confidence: 0.9767673

00:20:55.234 --> 00:20:56.275 And what do our guidelines

NOTE Confidence: 0.9767673

00:20:56.275 --> 00:20:57.734 say about surgical managements?

NOTE Confidence: 0.90229195

00:21:00.270 --> 00:21:02.109 These are the really the

NOTE Confidence: 0.90229195

00:21:02.109 --> 00:21:03.470 two most recent guidelines, the

NOTE Confidence: 0.90229195

00:21:03.470 --> 00:21:04.910 STEMI guidelines that comment on

NOTE Confidence: 0.90229195

00:21:04.910 --> 00:21:05.710 it. On the left is

NOTE Confidence: 0.90229195

00:21:05.710 --> 00:21:06.990 the two thousand four STEMI

NOTE Confidence: 0.90229195

00:21:06.990 --> 00:21:07.490 guidelines,

NOTE Confidence: 0.9392046

00:21:07.869 --> 00:21:09.310 which gives a, class two

NOTE Confidence: 0.9392046

00:21:09.310 --> 00:21:10.130 a recommendation

NOTE Confidence: 0.9986545

00:21:11.150 --> 00:21:11.650 for

NOTE Confidence: 0.9638777

00:21:12.434 --> 00:21:13.255 surgical aneuryscectomy

NOTE Confidence: 0.9503795

00:21:14.195 --> 00:21:16.774 if there's intractable ventricular tachyarrhythmias

NOTE Confidence: 0.9723102

00:21:17.315 --> 00:21:19.554 or pump failure refractory to

NOTE Confidence: 0.9723102

00:21:19.554 --> 00:21:21.335 medical or catheter based therapies.

NOTE Confidence: 0.9869808

00:21:21.875 --> 00:21:23.075 The more recent two thousand

NOTE Confidence: 0.9869808

00:21:23.075 --> 00:21:24.914 thirteen STEMI guidelines, they don't

NOTE Confidence: 0.9869808

00:21:24.914 --> 00:21:26.134 give a formal recommendation,

NOTE Confidence: 0.96162176

00:21:26.929 --> 00:21:28.130 but the they make a

NOTE Confidence: 0.96162176

00:21:28.130 --> 00:21:29.570 statement to consider repair for

NOTE Confidence: 0.96162176

00:21:29.570 --> 00:21:30.789 treatment of heart failure,

NOTE Confidence: 0.89403456

00:21:31.169 --> 00:21:32.770 ventricular arrhythmia is not a

NOTE Confidence: 0.89403456

00:21:32.770 --> 00:21:34.309 minimal to drugs or ablation,

NOTE Confidence: 0.972953

00:21:34.770 --> 00:21:35.990 or recurrent thromboembolism

NOTE Confidence: 0.9544332

00:21:37.090 --> 00:21:38.070 despite appropriate,

NOTE Confidence: 0.99817616

00:21:39.010 --> 00:21:39.510 anticoagulation

NOTE Confidence: 0.99341285

00:21:40.049 --> 00:21:40.549 therapy.

NOTE Confidence: 0.9947865

00:21:45.055 --> 00:21:46.175 Now given all this in

NOTE Confidence: 0.9947865

00:21:46.175 --> 00:21:47.055 mind, let's go back to

NOTE Confidence: 0.9947865

00:21:47.055 --> 00:21:47.715 our case.

NOTE Confidence: 0.9904172

00:21:49.775 --> 00:21:50.835 Now for about

NOTE Confidence: 0.9387145

00:21:51.615 --> 00:21:52.175 the next,

NOTE Confidence: 0.9753577

00:21:53.135 --> 00:21:53.855 year and a half, the

NOTE Confidence: 0.9753577

00:21:53.855 --> 00:21:55.775 patient was, was continued to

NOTE Confidence: 0.9753577

00:21:55.775 --> 00:21:56.755 be seen in clinic.

NOTE Confidence: 0.99963737

00:21:57.590 --> 00:21:58.650 Her symptoms

NOTE Confidence: 0.9751859

00:21:59.190 --> 00:22:00.410 were really unchanged.

NOTE Confidence: 0.8966337

00:22:01.030 --> 00:22:03.350 Still mild dyspnea, NYHA class

NOTE Confidence: 0.8966337

00:22:03.350 --> 00:22:03.850 two.

NOTE Confidence: 0.95045567

00:22:04.630 --> 00:22:06.170 She received a primary prevention

NOTE Confidence: 0.95045567

00:22:06.230 --> 00:22:08.570 ICD for unrecovered ejection fraction,

NOTE Confidence: 0.9054144

00:22:10.105 --> 00:22:11.225 And we were also able

NOTE Confidence: 0.9054144

00:22:11.225 --> 00:22:12.105 to get her started on

NOTE Confidence: 0.9054144

00:22:12.105 --> 00:22:13.144 minimal g d n t

NOTE Confidence: 0.9054144

00:22:13.144 --> 00:22:14.585 therapy due to improvement in

NOTE Confidence: 0.9054144

00:22:14.585 --> 00:22:15.325 her blood pressure.

NOTE Confidence: 0.9596578

00:22:16.024 --> 00:22:17.465 And then given really lack

NOTE Confidence: 0.9596578

00:22:17.465 --> 00:22:19.005 of symptoms and lack of

NOTE Confidence: 0.9596578

00:22:19.225 --> 00:22:21.384 these complications that, I mentioned

NOTE Confidence: 0.9596578

00:22:21.384 --> 00:22:22.284 serial imaging

NOTE Confidence: 0.92043537

00:22:22.744 --> 00:22:25.020 of the of, the aneurysm

NOTE Confidence: 0.92043537

00:22:25.020 --> 00:22:25.840 was discontinued.

NOTE Confidence: 0.9666082

00:22:28.300 --> 00:22:29.580 She had a repeat echo

NOTE Confidence: 0.9666082

00:22:29.580 --> 00:22:30.940 in October twenty twenty four.

NOTE Confidence: 0.9666082

00:22:30.940 --> 00:22:32.060 Now we're about a year

NOTE Confidence: 0.9666082

00:22:32.060 --> 00:22:33.100 and a half after her

NOTE Confidence: 0.9666082

00:22:33.100 --> 00:22:33.600 hospitalization.

NOTE Confidence: 0.9592256

00:22:35.660 --> 00:22:37.260 Unfortunately, the aneurysm continued to

NOTE Confidence: 0.9592256

00:22:37.260 --> 00:22:38.445 grow in size. It was

NOTE Confidence: 0.9592256

00:22:38.445 --> 00:22:39.484 now measured to be three

NOTE Confidence: 0.9592256

00:22:39.484 --> 00:22:40.524 point nine over four point

NOTE Confidence: 0.9592256

00:22:40.524 --> 00:22:41.265 six centimeters

NOTE Confidence: 0.9738447

00:22:42.044 --> 00:22:42.865 with contrast.

NOTE Confidence: 0.9537053

00:22:45.164 --> 00:22:45.904 And now

NOTE Confidence: 0.95745766

00:22:46.205 --> 00:22:47.585 despite being on anticoagulation,

NOTE Confidence: 0.9958361

00:22:47.965 --> 00:22:49.505 it was discovered that she

NOTE Confidence: 0.9958361

00:22:49.565 --> 00:22:51.984 had a large mural thrombus.

NOTE Confidence: 0.98701006

00:22:53.149 --> 00:22:54.109 So this is just so

NOTE Confidence: 0.98701006

00:22:54.109 --> 00:22:55.250 you can have an appreciation

NOTE Confidence: 0.98701006

00:22:55.470 --> 00:22:55.970 for,

NOTE Confidence: 0.96373427

00:22:58.029 --> 00:22:59.070 the aneurysm. And now I'm

NOTE Confidence: 0.96373427

00:22:59.070 --> 00:23:00.210 gonna show you the parasternal

NOTE Confidence: 0.96373427

00:23:00.269 --> 00:23:01.570 long view with contrast.

NOTE Confidence: 0.9922415

00:23:02.990 --> 00:23:04.109 And you can see sort

NOTE Confidence: 0.9922415

00:23:04.109 --> 00:23:04.769 of this,

NOTE Confidence: 0.9944319

00:23:05.710 --> 00:23:06.529 this aneurysm,

NOTE Confidence: 0.5054456

00:23:07.710 --> 00:23:08.210 black

NOTE Confidence: 0.8342633

00:23:09.525 --> 00:23:10.905 and the contrasted images.

NOTE Confidence: 0.9809294

00:23:11.605 --> 00:23:12.505 And then lastly,

NOTE Confidence: 0.98034304

00:23:12.885 --> 00:23:14.005 it was discovered she has

NOTE Confidence: 0.98034304

00:23:14.005 --> 00:23:14.665 a VSD.

NOTE Confidence: 0.9104408

00:23:15.125 --> 00:23:16.825 A ventricular septal defect,

NOTE Confidence: 0.9978048

00:23:17.525 --> 00:23:18.585 was also present.

NOTE Confidence: 0.9320509

00:23:20.805 --> 00:23:22.405 Fortunately, at least the, there

NOTE Confidence: 0.9320509

00:23:22.405 --> 00:23:23.369 wasn't any significant,

NOTE Confidence: 0.99299526

00:23:24.410 --> 00:23:26.670 change to her mitral regurgitation.

NOTE Confidence: 0.9968748

00:23:28.170 --> 00:23:28.670 And

NOTE Confidence: 0.9734613

00:23:30.010 --> 00:23:30.970 now I'm gonna just take

NOTE Confidence: 0.9734613

00:23:30.970 --> 00:23:31.850 a minute just to talk

NOTE Confidence: 0.9734613

00:23:31.850 --> 00:23:33.130 about the echo imigings of

NOTE Confidence: 0.9734613

00:23:33.130 --> 00:23:34.590 LV aneurysm and thrombus.

NOTE Confidence: 0.992597

00:23:35.050 --> 00:23:36.490 Echo is the first line

NOTE Confidence: 0.992597

00:23:36.490 --> 00:23:37.390 imaging modality

NOTE Confidence: 0.9583349

00:23:39.184 --> 00:23:40.804 for LV thrombus. It,

NOTE Confidence: 0.99894387

00:23:42.065 --> 00:23:43.285 can help distinguish

NOTE Confidence: 0.95989835

00:23:44.865 --> 00:23:46.465 sorry. First line imaging modality

NOTE Confidence: 0.95989835

00:23:46.465 --> 00:23:48.244 for LV aneurysms and thrombus.

NOTE Confidence: 0.92213094

00:23:49.984 --> 00:23:51.744 It can distinguish between true

NOTE Confidence: 0.92213094

00:23:51.744 --> 00:23:52.645 versus pseudoaneurysms.

NOTE Confidence: 0.9749997

00:23:53.580 --> 00:23:54.619 And one of the one

NOTE Confidence: 0.9749997

00:23:54.619 --> 00:23:55.419 of the key ways it

NOTE Confidence: 0.9749997

00:23:55.419 --> 00:23:56.380 can do that is by

NOTE Confidence: 0.9749997

00:23:56.380 --> 00:23:57.980 looking at the internal neck

NOTE Confidence: 0.9749997

00:23:57.980 --> 00:23:59.740 diameter versus the sac diameter

NOTE Confidence: 0.9749997

00:23:59.740 --> 00:24:00.240 ratio.

NOTE Confidence: 0.99000275

00:24:01.179 --> 00:24:01.679 Typically,

NOTE Confidence: 0.99451274

00:24:03.260 --> 00:24:04.779 when the ratio is point

NOTE Confidence: 0.99451274

00:24:04.779 --> 00:24:05.760 five to one,

NOTE Confidence: 0.86283714

00:24:07.145 --> 00:24:08.744 meaning a sort of a

NOTE Confidence: 0.86283714

00:24:08.744 --> 00:24:09.244 larger

NOTE Confidence: 0.96596164

00:24:09.625 --> 00:24:11.325 neck, then this corresponds

NOTE Confidence: 0.97553545

00:24:11.705 --> 00:24:12.525 to a,

NOTE Confidence: 0.99782467

00:24:13.544 --> 00:24:14.285 true aneurysm

NOTE Confidence: 0.96290606

00:24:14.665 --> 00:24:16.105 versus a pseudo aneurysm or

NOTE Confidence: 0.96290606

00:24:16.105 --> 00:24:17.465 false aneurysm where this ratio

NOTE Confidence: 0.96290606

00:24:17.465 --> 00:24:18.845 is less than point five.

NOTE Confidence: 0.96290606

00:24:18.984 --> 00:24:20.184 Certainly and when I say

NOTE Confidence: 0.96290606

00:24:20.184 --> 00:24:21.900 pseudo aneurysm, it means sort

NOTE Confidence: 0.96290606

00:24:21.900 --> 00:24:23.180 of complete rupture of the

NOTE Confidence: 0.96290606

00:24:23.180 --> 00:24:23.680 wall

NOTE Confidence: 0.8886949

00:24:24.140 --> 00:24:26.240 of of the LV wall

NOTE Confidence: 0.85412407

00:24:26.700 --> 00:24:27.200 and,

NOTE Confidence: 0.99212736

00:24:28.700 --> 00:24:30.460 blood contents going into filling

NOTE Confidence: 0.99212736

00:24:30.460 --> 00:24:31.760 the pericardial space.

NOTE Confidence: 0.99011797

00:24:32.540 --> 00:24:33.820 Now in terms of thrombus

NOTE Confidence: 0.99011797

00:24:33.820 --> 00:24:35.359 identification with echo,

NOTE Confidence: 0.9727895

00:24:37.304 --> 00:24:38.664 where it's not as strong

NOTE Confidence: 0.9727895

00:24:38.664 --> 00:24:39.884 as other imaging mortalities

NOTE Confidence: 0.9020875

00:24:40.424 --> 00:24:42.105 is its sensitivity and a

NOTE Confidence: 0.9020875

00:24:42.105 --> 00:24:43.705 definite thrombus. With no contrast,

NOTE Confidence: 0.9020875

00:24:43.705 --> 00:24:45.065 the sensitivity is thirty seven

NOTE Confidence: 0.9020875

00:24:45.065 --> 00:24:45.565 percent.

NOTE Confidence: 0.95603824

00:24:46.424 --> 00:24:48.264 With contrast, that increases to

NOTE Confidence: 0.95603824

00:24:48.264 --> 00:24:49.404 sixty four percent.

NOTE Confidence: 0.99646264

00:24:50.184 --> 00:24:51.404 And then the specificity

NOTE Confidence: 0.98386484

00:24:51.705 --> 00:24:51.865 of

NOTE Confidence: 0.99936

00:24:52.770 --> 00:24:53.670 but the specificity

NOTE Confidence: 0.9994579

00:24:54.369 --> 00:24:55.890 is comparable to that of

NOTE Confidence: 0.9994579

00:24:55.890 --> 00:24:56.790 cardiac MRI

NOTE Confidence: 0.7262788

00:24:57.330 --> 00:24:58.930 where with contrast to ease

NOTE Confidence: 0.7262788

00:24:58.930 --> 00:25:00.050 of a ninety nine percent

NOTE Confidence: 0.9732774

00:25:06.595 --> 00:25:08.755 The difficulties of doing imaging

NOTE Confidence: 0.9732774

00:25:08.755 --> 00:25:10.215 of LV aneurysms and thrombus

NOTE Confidence: 0.9732774

00:25:10.274 --> 00:25:10.934 with echo,

NOTE Confidence: 0.968133

00:25:13.075 --> 00:25:15.394 first, it's difficult to compare

NOTE Confidence: 0.968133

00:25:15.394 --> 00:25:16.774 the aneurysm size

NOTE Confidence: 0.9942368

00:25:17.075 --> 00:25:17.894 and thrombus

NOTE Confidence: 0.98648703

00:25:18.274 --> 00:25:18.934 on echo.

NOTE Confidence: 0.94090366

00:25:21.130 --> 00:25:22.990 Echo can underestimate the aneurysm

NOTE Confidence: 0.93025994

00:25:23.929 --> 00:25:25.789 size mostly due to foreshortening,

NOTE Confidence: 0.93025994

00:25:25.929 --> 00:25:27.210 which can miss the true

NOTE Confidence: 0.93025994

00:25:27.210 --> 00:25:28.750 LV apex or the thrombus.

NOTE Confidence: 0.9310938

00:25:30.970 --> 00:25:32.270 It should be, you know,

NOTE Confidence: 0.91990405

00:25:33.365 --> 00:25:34.565 it should be considered to

NOTE Confidence: 0.91990405

00:25:34.565 --> 00:25:36.085 per because of the increased

NOTE Confidence: 0.91990405

00:25:36.085 --> 00:25:37.445 sensitivity, the study should be

NOTE Confidence: 0.91990405

00:25:37.445 --> 00:25:38.585 performed with contrast.

NOTE Confidence: 0.99683434

00:25:38.965 --> 00:25:40.565 And then volumetric imaging of

NOTE Confidence: 0.99683434

00:25:40.565 --> 00:25:41.225 the aneurysm

NOTE Confidence: 0.9963223

00:25:41.605 --> 00:25:43.045 could can also be helpful

NOTE Confidence: 0.9963223

00:25:43.045 --> 00:25:43.865 in these cases.

NOTE Confidence: 0.952615

00:25:46.335 --> 00:25:46.835 Now

NOTE Confidence: 0.96643674

00:25:50.250 --> 00:25:51.450 so what I have here

NOTE Confidence: 0.96643674

00:25:51.690 --> 00:25:53.130 and just to so you

NOTE Confidence: 0.96643674

00:25:53.130 --> 00:25:54.650 can appreciate that point is

NOTE Confidence: 0.96643674

00:25:54.650 --> 00:25:55.850 that we have these echo

NOTE Confidence: 0.96643674

00:25:55.850 --> 00:25:56.350 images.

NOTE Confidence: 0.9805972

00:25:56.730 --> 00:25:57.929 And the first ones are

NOTE Confidence: 0.9805972

00:25:57.929 --> 00:25:59.450 images in twenty twenty three

NOTE Confidence: 0.9805972

00:25:59.450 --> 00:26:00.490 and then in twenty twenty

NOTE Confidence: 0.9805972

00:26:00.490 --> 00:26:00.990 five

NOTE Confidence: 0.9383639

00:26:01.530 --> 00:26:03.549 in the same apical views.

NOTE Confidence: 0.98987174

00:26:04.385 --> 00:26:05.585 And what you can hopefully

NOTE Confidence: 0.98987174

00:26:05.585 --> 00:26:06.085 appreciate

NOTE Confidence: 0.9903686

00:26:06.465 --> 00:26:07.825 is that it's it's really

NOTE Confidence: 0.9903686

00:26:07.825 --> 00:26:08.965 difficult to tell,

NOTE Confidence: 0.99938273

00:26:10.465 --> 00:26:10.965 changes

NOTE Confidence: 0.9691763

00:26:11.505 --> 00:26:13.345 between the sizes, you know,

NOTE Confidence: 0.9691763

00:26:13.345 --> 00:26:14.645 over this two year period.

NOTE Confidence: 0.9668815

00:26:16.309 --> 00:26:17.190 You know, if you're just

NOTE Confidence: 0.9668815

00:26:17.190 --> 00:26:19.030 looking qualitatively, sometimes it can

NOTE Confidence: 0.9668815

00:26:19.030 --> 00:26:19.770 look unchanged.

NOTE Confidence: 0.94326925

00:26:26.390 --> 00:26:28.390 Now aside from her cardiac

NOTE Confidence: 0.94326925

00:26:28.390 --> 00:26:29.429 care, the patient was also

NOTE Confidence: 0.94326925

00:26:29.429 --> 00:26:30.950 getting worked up for pulmonary

NOTE Confidence: 0.94326925

00:26:30.950 --> 00:26:31.450 nodules,

NOTE Confidence: 0.99868506

00:26:31.774 --> 00:26:32.815 and she received a low

NOTE Confidence: 0.99868506

00:26:32.815 --> 00:26:33.955 dose CT scan

NOTE Confidence: 0.97663206

00:26:34.414 --> 00:26:36.034 that showed that the aneurysm

NOTE Confidence: 0.97663206

00:26:36.095 --> 00:26:37.615 size has almost doubled in

NOTE Confidence: 0.97663206

00:26:37.615 --> 00:26:39.054 dimensions compared to our prior

NOTE Confidence: 0.97663206

00:26:39.054 --> 00:26:40.174 echo, which raised a lot

NOTE Confidence: 0.97663206

00:26:40.174 --> 00:26:40.835 of concern.

NOTE Confidence: 0.85537595

00:26:41.215 --> 00:26:42.894 So I'm gonna ask, doctor

NOTE Confidence: 0.85537595

00:26:42.894 --> 00:26:43.715 Philip Mora,

NOTE Confidence: 0.9971957

00:26:45.350 --> 00:26:46.390 to discuss these,

NOTE Confidence: 0.9602402

00:26:47.190 --> 00:26:48.630 these findings in detail. And,

NOTE Confidence: 0.9602402

00:26:48.710 --> 00:26:49.750 also, he's gonna give us

NOTE Confidence: 0.9602402

00:26:49.750 --> 00:26:51.270 his expertise on the role

NOTE Confidence: 0.9602402

00:26:51.270 --> 00:26:52.550 of CT and imaging for

NOTE Confidence: 0.9602402

00:26:52.550 --> 00:26:53.290 these cases.

NOTE Confidence: 0.90996325

00:27:01.494 --> 00:27:03.095 So we generally don't read

NOTE Confidence: 0.90996325

00:27:03.095 --> 00:27:04.155 low dose CTs,

NOTE Confidence: 0.9936954

00:27:04.855 --> 00:27:05.355 but,

NOTE Confidence: 0.9381666

00:27:06.375 --> 00:27:07.255 you know, it's a not

NOTE Confidence: 0.9381666

00:27:07.255 --> 00:27:08.215 that it's not it's not

NOTE Confidence: 0.9381666

00:27:08.215 --> 00:27:09.975 a cardiac dedicated study, so

NOTE Confidence: 0.9381666

00:27:09.975 --> 00:27:11.035 there's no contrast.

NOTE Confidence: 0.99500847

00:27:11.550 --> 00:27:12.830 So it's hard to take

NOTE Confidence: 0.99500847

00:27:12.830 --> 00:27:13.710 a lot away from it.

NOTE Confidence: 0.99500847

00:27:13.710 --> 00:27:14.210 But

NOTE Confidence: 0.95843804

00:27:14.590 --> 00:27:16.110 surprisingly enough, if you if

NOTE Confidence: 0.95843804

00:27:16.110 --> 00:27:17.490 you if you put effort,

NOTE Confidence: 0.94490635

00:27:17.950 --> 00:27:18.750 you can get a lot

NOTE Confidence: 0.94490635

00:27:18.750 --> 00:27:19.869 of information. And I think

NOTE Confidence: 0.94490635

00:27:19.869 --> 00:27:21.090 we were able to get

NOTE Confidence: 0.94490635

00:27:21.150 --> 00:27:22.450 a nice piece of information

NOTE Confidence: 0.94490635

00:27:22.510 --> 00:27:23.950 here. You know, you see

NOTE Confidence: 0.94490635

00:27:23.950 --> 00:27:25.790 here, we have reconstructed for

NOTE Confidence: 0.94490635

00:27:25.790 --> 00:27:27.645 you in the sagittal, the

NOTE Confidence: 0.94490635

00:27:27.645 --> 00:27:29.585 coronal, and the axial views.

NOTE Confidence: 0.9950126

00:27:30.285 --> 00:27:32.145 You see this bulging,

NOTE Confidence: 0.9601325

00:27:32.765 --> 00:27:33.265 apex,

NOTE Confidence: 0.7384818

00:27:34.445 --> 00:27:34.945 that

NOTE Confidence: 0.99204373

00:27:36.045 --> 00:27:37.405 expands outside of the regular

NOTE Confidence: 0.99204373

00:27:37.405 --> 00:27:37.905 contours

NOTE Confidence: 0.9925084

00:27:38.685 --> 00:27:40.045 of the myocardium, you know,

NOTE Confidence: 0.9925084

00:27:40.045 --> 00:27:41.105 extending even

NOTE Confidence: 0.97656155

00:27:41.509 --> 00:27:42.889 below the the diaphragm,

NOTE Confidence: 0.9447649

00:27:43.429 --> 00:27:44.869 and nicely enough. You can

NOTE Confidence: 0.9447649

00:27:44.869 --> 00:27:47.350 use the ICD as, as

NOTE Confidence: 0.9447649

00:27:47.350 --> 00:27:48.009 a reference,

NOTE Confidence: 0.98881245

00:27:48.710 --> 00:27:50.090 for where that might be,

NOTE Confidence: 0.8703947

00:27:50.549 --> 00:27:52.070 even though we essentially have

NOTE Confidence: 0.8703947

00:27:52.070 --> 00:27:53.369 no contrast at images.

NOTE Confidence: 0.9905812

00:27:53.909 --> 00:27:54.549 And then,

NOTE Confidence: 0.9951506

00:27:54.869 --> 00:27:55.769 if you click,

NOTE Confidence: 0.97501504

00:27:57.055 --> 00:27:58.515 can you go forward one?

NOTE Confidence: 0.9529252

00:28:00.255 --> 00:28:01.695 So this is the twenty

NOTE Confidence: 0.9529252

00:28:01.695 --> 00:28:02.655 twenty five one that we

NOTE Confidence: 0.9529252

00:28:02.655 --> 00:28:04.015 just looked at. But if

NOTE Confidence: 0.9529252

00:28:04.015 --> 00:28:05.295 you compare it with the

NOTE Confidence: 0.9529252

00:28:05.295 --> 00:28:05.795 same,

NOTE Confidence: 0.88734514

00:28:06.815 --> 00:28:08.515 acquisition that was done

NOTE Confidence: 0.98567086

00:28:08.815 --> 00:28:09.715 a year prior,

NOTE Confidence: 0.87333375

00:28:10.679 --> 00:28:12.519 you can appreciate at least

NOTE Confidence: 0.87333375

00:28:12.519 --> 00:28:13.019 visually,

NOTE Confidence: 0.99921477

00:28:13.559 --> 00:28:15.340 you know, the extension of

NOTE Confidence: 0.98654515

00:28:15.799 --> 00:28:16.380 the bulging,

NOTE Confidence: 0.95086443

00:28:17.080 --> 00:28:18.940 apex, you know, below the

NOTE Confidence: 0.95086443

00:28:19.159 --> 00:28:20.619 the ICD and the diaphragm

NOTE Confidence: 0.95086443

00:28:20.760 --> 00:28:21.820 seemed less substantial.

NOTE Confidence: 0.8394306

00:28:22.665 --> 00:28:23.165 Now,

NOTE Confidence: 0.9718007

00:28:23.465 --> 00:28:24.045 the the,

NOTE Confidence: 0.98460287

00:28:24.505 --> 00:28:25.965 the left lateral,

NOTE Confidence: 0.98842067

00:28:26.345 --> 00:28:28.345 left to right dimensions appear

NOTE Confidence: 0.98842067

00:28:28.345 --> 00:28:29.545 about the same size. But

NOTE Confidence: 0.98842067

00:28:29.545 --> 00:28:30.525 if you look at

NOTE Confidence: 0.9950242

00:28:30.825 --> 00:28:32.525 the cranial to caudal dimensions

NOTE Confidence: 0.9386407

00:28:33.065 --> 00:28:34.605 and the anterior to posterior,

NOTE Confidence: 0.9958186

00:28:35.385 --> 00:28:35.885 dimensions,

NOTE Confidence: 0.99551713

00:28:36.425 --> 00:28:37.885 they look a bit enlarged.

NOTE Confidence: 0.98275864

00:28:38.200 --> 00:28:39.960 And we're actually able to,

NOTE Confidence: 0.98275864

00:28:40.200 --> 00:28:41.160 do a little bit of,

NOTE Confidence: 0.98275864

00:28:41.560 --> 00:28:42.760 use a tool where we

NOTE Confidence: 0.98275864

00:28:42.760 --> 00:28:43.640 kind of try to get

NOTE Confidence: 0.98275864

00:28:43.640 --> 00:28:44.140 a,

NOTE Confidence: 0.9914284

00:28:44.760 --> 00:28:46.440 a really a really poor

NOTE Confidence: 0.9914284

00:28:46.440 --> 00:28:48.380 man's assessment of volume.

NOTE Confidence: 0.99024945

00:28:48.680 --> 00:28:50.220 But interestingly enough,

NOTE Confidence: 0.9962169

00:28:51.095 --> 00:28:52.375 if you actually if you

NOTE Confidence: 0.9962169

00:28:52.375 --> 00:28:53.755 look at the aneurysm

NOTE Confidence: 0.96376204

00:28:54.055 --> 00:28:55.255 on the right, the one

NOTE Confidence: 0.96376204

00:28:55.255 --> 00:28:56.855 from a year prior, where

NOTE Confidence: 0.96376204

00:28:56.855 --> 00:28:58.135 we got an estimation of

NOTE Confidence: 0.96376204

00:28:58.135 --> 00:28:59.435 about thirty six,

NOTE Confidence: 0.9050355

00:28:59.895 --> 00:29:01.035 forty five cc's,

NOTE Confidence: 0.969122

00:29:01.815 --> 00:29:03.175 if you compare that to

NOTE Confidence: 0.969122

00:29:03.175 --> 00:29:04.695 the echo done about the

NOTE Confidence: 0.969122

00:29:04.695 --> 00:29:05.515 same time

NOTE Confidence: 0.9946457

00:29:05.940 --> 00:29:07.620 where that bulge had a

NOTE Confidence: 0.9946457

00:29:07.620 --> 00:29:08.760 spherical radius

NOTE Confidence: 0.9713733

00:29:09.299 --> 00:29:10.980 of about two point one,

NOTE Confidence: 0.9713733

00:29:10.980 --> 00:29:11.960 two point two,

NOTE Confidence: 0.8815643

00:29:15.059 --> 00:29:15.559 centimeters,

NOTE Confidence: 0.93083084

00:29:16.419 --> 00:29:18.360 it actually pairs up, relatively

NOTE Confidence: 0.93083084

00:29:18.419 --> 00:29:19.880 well in terms of volume.

NOTE Confidence: 0.93083084

00:29:20.019 --> 00:29:21.000 If you use that,

NOTE Confidence: 0.96853584

00:29:22.055 --> 00:29:23.495 mathematically, you get about thirty

NOTE Confidence: 0.96853584

00:29:23.495 --> 00:29:24.715 eight, ml.

NOTE Confidence: 0.98054665

00:29:25.415 --> 00:29:26.695 So that was kinda interesting

NOTE Confidence: 0.98054665

00:29:26.695 --> 00:29:27.735 to to note. But, you

NOTE Confidence: 0.98054665

00:29:27.735 --> 00:29:29.115 know, it's not a dedicated

NOTE Confidence: 0.98054665

00:29:29.175 --> 00:29:30.295 study, but it it raised

NOTE Confidence: 0.98054665

00:29:30.455 --> 00:29:31.975 definitely raised concern that there

NOTE Confidence: 0.98054665

00:29:31.975 --> 00:29:32.655 might be,

NOTE Confidence: 0.9611524

00:29:33.095 --> 00:29:33.975 there might have there there

NOTE Confidence: 0.9611524

00:29:33.975 --> 00:29:36.295 had been some, interval increase

NOTE Confidence: 0.9611524

00:29:36.295 --> 00:29:37.500 in size over the course

NOTE Confidence: 0.9611524

00:29:37.500 --> 00:29:38.360 of a year.

NOTE Confidence: 0.999101

00:29:39.780 --> 00:29:41.060 And then, you know, generally

NOTE Confidence: 0.999101

00:29:41.060 --> 00:29:41.560 speaking,

NOTE Confidence: 0.9968538

00:29:42.900 --> 00:29:44.340 you know, for assessment of

NOTE Confidence: 0.9968538

00:29:44.340 --> 00:29:46.500 aneurysm of the LV and

NOTE Confidence: 0.9968538

00:29:46.500 --> 00:29:47.240 or thrombus,

NOTE Confidence: 0.99176645

00:29:47.620 --> 00:29:48.980 your your go to is

NOTE Confidence: 0.99176645

00:29:48.980 --> 00:29:50.040 a cardiac MRI.

NOTE Confidence: 0.90047854

00:29:50.715 --> 00:29:52.815 You have higher, spatial resolution,

NOTE Confidence: 0.9659424

00:29:54.235 --> 00:29:55.355 as well as tissue,

NOTE Confidence: 0.9846039

00:29:55.755 --> 00:29:57.115 differentiation with what you can

NOTE Confidence: 0.9846039

00:29:57.115 --> 00:29:58.955 do in in cardiac MRI.

NOTE Confidence: 0.9846039

00:29:58.955 --> 00:29:59.775 But it is

NOTE Confidence: 0.9665216

00:30:00.235 --> 00:30:02.075 reasonable to to pursue a

NOTE Confidence: 0.9665216

00:30:02.075 --> 00:30:03.674 CT, particularly if you can't,

NOTE Confidence: 0.9439523

00:30:04.420 --> 00:30:05.780 can't conduct a cardiac MRI

NOTE Confidence: 0.9439523

00:30:05.780 --> 00:30:06.600 in a patient.

NOTE Confidence: 0.944922

00:30:07.140 --> 00:30:08.100 And that we find in

NOTE Confidence: 0.944922

00:30:08.100 --> 00:30:08.760 the guidelines,

NOTE Confidence: 0.9112297

00:30:09.460 --> 00:30:10.920 both in US and Europe.

NOTE Confidence: 0.97295403

00:30:11.700 --> 00:30:13.060 And, you know, not only

NOTE Confidence: 0.97295403

00:30:13.060 --> 00:30:14.120 can we do a volumetric

NOTE Confidence: 0.97295403

00:30:14.260 --> 00:30:14.760 analysis,

NOTE Confidence: 0.9614706

00:30:15.300 --> 00:30:16.660 but with the, with CT,

NOTE Confidence: 0.9614706

00:30:16.660 --> 00:30:18.020 we can also do delayed

NOTE Confidence: 0.9614706

00:30:18.020 --> 00:30:19.800 enhancement imaging as well.

NOTE Confidence: 0.95709944

00:30:20.415 --> 00:30:21.615 So, you know, not just

NOTE Confidence: 0.95709944

00:30:21.615 --> 00:30:22.815 the arterial phase but if

NOTE Confidence: 0.95709944

00:30:22.815 --> 00:30:23.935 you image in, you know,

NOTE Confidence: 0.95709944

00:30:23.935 --> 00:30:25.375 between five or ten minutes,

NOTE Confidence: 0.95709944

00:30:25.375 --> 00:30:26.895 depending on your protocol in

NOTE Confidence: 0.95709944

00:30:26.895 --> 00:30:27.635 your lab,

NOTE Confidence: 0.99396706

00:30:27.935 --> 00:30:29.875 you're able to see enhancement,

NOTE Confidence: 0.83956057

00:30:30.575 --> 00:30:31.715 a delayed enhancement,

NOTE Confidence: 0.9440126

00:30:32.335 --> 00:30:33.855 in where there is actually

NOTE Confidence: 0.9440126

00:30:33.855 --> 00:30:34.355 still

NOTE Confidence: 0.89317477

00:30:34.710 --> 00:30:36.070 myocardium, where would be the

NOTE Confidence: 0.89317477

00:30:36.070 --> 00:30:37.350 case of a of an

NOTE Confidence: 0.89317477

00:30:37.350 --> 00:30:37.850 aneurysm.

NOTE Confidence: 0.96839726

00:30:38.309 --> 00:30:39.270 And if there if it

NOTE Confidence: 0.96839726

00:30:39.270 --> 00:30:40.490 is, in fact, a pseudoaneurysm,

NOTE Confidence: 0.99907786

00:30:40.870 --> 00:30:41.370 generally,

NOTE Confidence: 0.98646325

00:30:41.990 --> 00:30:43.770 it's a much lower density,

NOTE Confidence: 0.78591025

00:30:44.549 --> 00:30:45.049 structure,

NOTE Confidence: 0.9987199

00:30:45.429 --> 00:30:46.470 and so that can be

NOTE Confidence: 0.9987199

00:30:46.470 --> 00:30:47.830 used to differentiate one of

NOTE Confidence: 0.9987199

00:30:47.830 --> 00:30:48.490 the two.

NOTE Confidence: 0.874363

00:30:51.085 --> 00:30:52.284 Thank you, doctor Moore. I'll

NOTE Confidence: 0.874363

00:30:52.284 --> 00:30:53.325 just keep it. I'll just

NOTE Confidence: 0.874363

00:30:53.325 --> 00:30:54.304 keep it there. And,

NOTE Confidence: 0.99410266

00:30:57.565 --> 00:30:58.065 now

NOTE Confidence: 0.96698827

00:30:58.764 --> 00:31:00.365 back to back to the

NOTE Confidence: 0.96698827

00:31:00.365 --> 00:31:01.585 case, we have this,

NOTE Confidence: 0.9638775

00:31:02.205 --> 00:31:03.664 given this rapid enlargement.

NOTE Confidence: 0.9390604

00:31:04.880 --> 00:31:06.080 She was then admitted to

NOTE Confidence: 0.9390604

00:31:06.080 --> 00:31:06.820 the VA,

NOTE Confidence: 0.9950199

00:31:07.440 --> 00:31:08.980 for CT surgery evaluation.

NOTE Confidence: 0.983267

00:31:10.320 --> 00:31:12.580 But despite these imaging changes,

NOTE Confidence: 0.9994958

00:31:13.679 --> 00:31:14.880 she still did not have

NOTE Confidence: 0.9994958

00:31:14.880 --> 00:31:16.500 any progression of symptoms.

NOTE Confidence: 0.89235204

00:31:18.525 --> 00:31:20.065 She was, switched

NOTE Confidence: 0.98043364

00:31:20.445 --> 00:31:21.905 in the setting of this,

NOTE Confidence: 0.89938956

00:31:26.125 --> 00:31:27.585 she had evidence of,

NOTE Confidence: 0.9937498

00:31:28.045 --> 00:31:29.565 given the evidence of thrombus,

NOTE Confidence: 0.9937498

00:31:29.565 --> 00:31:30.545 she was switched

NOTE Confidence: 0.98129064

00:31:30.919 --> 00:31:32.860 from apixaban to Coumadin for,

NOTE Confidence: 0.9588688

00:31:33.320 --> 00:31:35.080 DOAC failure. And now we

NOTE Confidence: 0.9588688

00:31:35.080 --> 00:31:36.600 obtained a cardiac MRI to

NOTE Confidence: 0.9588688

00:31:36.600 --> 00:31:38.120 really care to fully characterize

NOTE Confidence: 0.9588688

00:31:38.120 --> 00:31:39.240 this aneurysm to help us

NOTE Confidence: 0.9588688

00:31:39.240 --> 00:31:40.200 move forward in how to

NOTE Confidence: 0.9588688

00:31:40.200 --> 00:31:41.159 manage it. And I'm gonna

NOTE Confidence: 0.9588688

00:31:41.159 --> 00:31:41.980 ask doctor,

NOTE Confidence: 0.8487053

00:31:42.600 --> 00:31:44.039 Emmanuel Quintoy to comment on

NOTE Confidence: 0.8487053

00:31:44.039 --> 00:31:45.260 the MRI findings.

NOTE Confidence: 0.9597771

00:31:46.265 --> 00:31:47.164 Alright. So,

NOTE Confidence: 0.9419779

00:31:48.585 --> 00:31:49.485 so I would say,

NOTE Confidence: 0.9906135

00:31:50.345 --> 00:31:51.945 the indication for cardiac MRI

NOTE Confidence: 0.9906135

00:31:51.945 --> 00:31:53.164 in this kind of patient

NOTE Confidence: 0.9906135

00:31:53.225 --> 00:31:53.725 would

NOTE Confidence: 0.9933661

00:31:54.265 --> 00:31:56.205 definitely be to differentiate

NOTE Confidence: 0.977975

00:31:56.585 --> 00:31:57.085 between,

NOTE Confidence: 0.99715906

00:31:57.705 --> 00:31:58.684 a true aneurysm

NOTE Confidence: 0.98943734

00:31:59.350 --> 00:32:01.029 and a pseudo aneurysm, which

NOTE Confidence: 0.98943734

00:32:01.029 --> 00:32:02.009 is a critical,

NOTE Confidence: 0.871054

00:32:03.590 --> 00:32:03.990 this,

NOTE Confidence: 0.8763415

00:32:05.110 --> 00:32:06.549 determination to make because the

NOTE Confidence: 0.8763415

00:32:06.549 --> 00:32:08.090 pseudo aneurysm, it's,

NOTE Confidence: 0.8978167

00:32:09.269 --> 00:32:10.889 urgent. It require, like, urgent

NOTE Confidence: 0.8978167

00:32:10.950 --> 00:32:13.185 repair because it could become,

NOTE Confidence: 0.8978167

00:32:13.185 --> 00:32:14.405 like, a catastrophe

NOTE Confidence: 0.99599296

00:32:14.865 --> 00:32:15.825 due to the high risk

NOTE Confidence: 0.99599296

00:32:15.825 --> 00:32:16.485 of rupture.

NOTE Confidence: 0.9975921

00:32:17.105 --> 00:32:17.605 So,

NOTE Confidence: 0.94904065

00:32:18.145 --> 00:32:19.925 like, Ali already mentioned,

NOTE Confidence: 0.88786745

00:32:20.545 --> 00:32:21.665 echo is the,

NOTE Confidence: 0.82000524

00:32:22.145 --> 00:32:24.245 imaging mod first imaging modality,

NOTE Confidence: 0.91951764

00:32:25.025 --> 00:32:25.345 but,

NOTE Confidence: 0.9993649

00:32:26.520 --> 00:32:27.020 the

NOTE Confidence: 0.9488565

00:32:27.320 --> 00:32:29.580 specificity of echo is limited.

NOTE Confidence: 0.8631905

00:32:30.040 --> 00:32:31.800 And that's where where Kedac

NOTE Confidence: 0.8631905

00:32:31.800 --> 00:32:33.000 MRI comes in to make

NOTE Confidence: 0.8631905

00:32:33.000 --> 00:32:33.900 that important,

NOTE Confidence: 0.99949515

00:32:35.160 --> 00:32:35.660 distinction.

NOTE Confidence: 0.99298877

00:32:36.280 --> 00:32:36.680 So,

NOTE Confidence: 0.9942051

00:32:37.080 --> 00:32:38.620 in terms of Kedac MRI,

NOTE Confidence: 0.9942051

00:32:38.760 --> 00:32:40.040 we do a lot of,

NOTE Confidence: 0.9785931

00:32:40.815 --> 00:32:42.115 sequence in order to,

NOTE Confidence: 0.96780384

00:32:42.894 --> 00:32:43.635 make determination

NOTE Confidence: 0.9864055

00:32:44.255 --> 00:32:44.735 of,

NOTE Confidence: 0.91250247

00:32:45.135 --> 00:32:46.195 what's the exact,

NOTE Confidence: 0.9575712

00:32:48.335 --> 00:32:49.475 pathology is.

NOTE Confidence: 0.9497843

00:32:49.934 --> 00:32:51.455 And, we typically start with

NOTE Confidence: 0.9497843

00:32:51.455 --> 00:32:52.654 the cine images. So as

NOTE Confidence: 0.9497843

00:32:52.654 --> 00:32:53.695 you can see, this is

NOTE Confidence: 0.9497843

00:32:53.695 --> 00:32:54.195 a

NOTE Confidence: 0.97752446

00:32:57.100 --> 00:32:58.620 poor image quality, and this

NOTE Confidence: 0.97752446

00:32:58.700 --> 00:33:00.220 it's poor image quality for

NOTE Confidence: 0.97752446

00:33:00.220 --> 00:33:01.740 this particular case because this

NOTE Confidence: 0.97752446

00:33:01.740 --> 00:33:03.280 patient already have an ICD.

NOTE Confidence: 0.9527227

00:33:04.140 --> 00:33:05.280 Patient with ICD,

NOTE Confidence: 0.86534566

00:33:05.980 --> 00:33:07.440 they it tends to limit

NOTE Confidence: 0.9816705

00:33:07.980 --> 00:33:09.200 what kind of sequence,

NOTE Confidence: 0.9513283

00:33:09.580 --> 00:33:10.865 we can do, and,

NOTE Confidence: 0.98344827

00:33:11.745 --> 00:33:12.485 it affects,

NOTE Confidence: 0.9636678

00:33:13.025 --> 00:33:14.385 the image quality. So the

NOTE Confidence: 0.9636678

00:33:14.385 --> 00:33:15.985 image quality is degraded in

NOTE Confidence: 0.9636678

00:33:15.985 --> 00:33:17.985 this particular picture. So this

NOTE Confidence: 0.9636678

00:33:17.985 --> 00:33:19.265 is typically not what we

NOTE Confidence: 0.9636678

00:33:19.265 --> 00:33:20.225 get for most of our

NOTE Confidence: 0.9636678

00:33:20.225 --> 00:33:21.045 cardiac MRI.

NOTE Confidence: 0.8911075

00:33:21.665 --> 00:33:23.039 But what is showing here

NOTE Confidence: 0.8911075

00:33:23.039 --> 00:33:24.720 in this, senior images is

NOTE Confidence: 0.8911075

00:33:24.720 --> 00:33:26.980 just the, long axis view.

NOTE Confidence: 0.98867

00:33:27.600 --> 00:33:28.000 And,

NOTE Confidence: 0.87462556

00:33:28.480 --> 00:33:30.080 we can see the sac

NOTE Confidence: 0.87462556

00:33:30.080 --> 00:33:32.100 coming from the inferior, epicoinfluorateral

NOTE Confidence: 0.9982569

00:33:32.880 --> 00:33:33.380 wall.

NOTE Confidence: 0.9372695

00:33:34.000 --> 00:33:34.960 Just looking at this in

NOTE Confidence: 0.9372695

00:33:34.960 --> 00:33:35.919 the images, it's hard to

NOTE Confidence: 0.9372695

00:33:35.919 --> 00:33:37.674 tell. Is this pseudo aneurysm?

NOTE Confidence: 0.9372695

00:33:37.674 --> 00:33:38.575 Is this aneurysm?

NOTE Confidence: 0.9924551

00:33:39.274 --> 00:33:39.774 So,

NOTE Confidence: 0.98042876

00:33:40.554 --> 00:33:41.855 we rely on,

NOTE Confidence: 0.91842985

00:33:42.394 --> 00:33:42.894 dedicated,

NOTE Confidence: 0.9841257

00:33:43.754 --> 00:33:44.815 MRI sequence,

NOTE Confidence: 0.9696684

00:33:45.355 --> 00:33:47.934 called the, delayed enhancement imaging,

NOTE Confidence: 0.97951084

00:33:48.475 --> 00:33:49.514 which is what is shown

NOTE Confidence: 0.97951084

00:33:49.514 --> 00:33:50.075 in this,

NOTE Confidence: 0.9995114

00:33:50.475 --> 00:33:50.975 slide.

NOTE Confidence: 0.9874191

00:33:52.710 --> 00:33:54.650 Like echo, we look at

NOTE Confidence: 0.9874191

00:33:54.710 --> 00:33:55.850 we look at similar,

NOTE Confidence: 0.9244581

00:33:56.470 --> 00:33:58.170 features just like echo.

NOTE Confidence: 0.9026515

00:33:58.950 --> 00:34:00.390 Like Ali already mentioned, we

NOTE Confidence: 0.9026515

00:34:00.390 --> 00:34:01.850 look at, the neck,

NOTE Confidence: 0.9749013

00:34:02.550 --> 00:34:03.370 of the,

NOTE Confidence: 0.61809313

00:34:03.990 --> 00:34:04.490 sac.

NOTE Confidence: 0.99645585

00:34:04.905 --> 00:34:06.345 So less than fifty percent

NOTE Confidence: 0.99645585

00:34:06.345 --> 00:34:07.725 means it's narrow.

NOTE Confidence: 0.88062125

00:34:08.825 --> 00:34:10.105 So that suggests you do

NOTE Confidence: 0.88062125

00:34:10.105 --> 00:34:11.225 aneurysm. If it's more than

NOTE Confidence: 0.88062125

00:34:11.225 --> 00:34:12.525 that, that suggests aneurysm.

NOTE Confidence: 0.95341575

00:34:13.785 --> 00:34:15.085 Also, we look at,

NOTE Confidence: 0.99303

00:34:16.745 --> 00:34:17.405 the location.

NOTE Confidence: 0.9864899

00:34:18.119 --> 00:34:18.619 So,

NOTE Confidence: 0.9158363

00:34:19.559 --> 00:34:20.779 a sac in the anterior

NOTE Confidence: 0.9158363

00:34:20.920 --> 00:34:21.420 or,

NOTE Confidence: 0.866482

00:34:22.039 --> 00:34:22.539 apex,

NOTE Confidence: 0.9949088

00:34:23.079 --> 00:34:25.239 most likely aneurysm. If it's

NOTE Confidence: 0.9949088

00:34:25.239 --> 00:34:27.099 inferior, then it's most likely,

NOTE Confidence: 0.8682051

00:34:28.039 --> 00:34:29.019 pseudo aneurysm.

NOTE Confidence: 0.99483746

00:34:29.815 --> 00:34:31.015 And then we also look

NOTE Confidence: 0.99483746

00:34:31.015 --> 00:34:31.495 at,

NOTE Confidence: 0.8690954

00:34:32.455 --> 00:34:33.435 abrupt cutoff.

NOTE Confidence: 0.97526723

00:34:34.295 --> 00:34:35.114 So between,

NOTE Confidence: 0.90055114

00:34:36.535 --> 00:34:37.575 we look at the boundary

NOTE Confidence: 0.90055114

00:34:37.575 --> 00:34:38.795 between the LV

NOTE Confidence: 0.96858597

00:34:39.335 --> 00:34:40.614 and the sac. So is

NOTE Confidence: 0.96858597

00:34:40.614 --> 00:34:42.135 there, like, an abrupt cutoff

NOTE Confidence: 0.96858597

00:34:42.135 --> 00:34:42.635 between

NOTE Confidence: 0.99691474

00:34:43.175 --> 00:34:43.915 the myocardium

NOTE Confidence: 0.97200286

00:34:44.215 --> 00:34:45.460 and the sac? So if

NOTE Confidence: 0.97200286

00:34:45.460 --> 00:34:47.219 there's an abrupt cutoff, then

NOTE Confidence: 0.97200286

00:34:47.219 --> 00:34:48.840 it suggests that there's probably

NOTE Confidence: 0.97200286

00:34:48.900 --> 00:34:50.040 a rupture there.

NOTE Confidence: 0.903144

00:34:50.420 --> 00:34:50.920 Right?

NOTE Confidence: 0.9638937

00:34:51.700 --> 00:34:53.060 If there's no rupture, it

NOTE Confidence: 0.9638937

00:34:53.060 --> 00:34:54.580 kind of tapers into the

NOTE Confidence: 0.9638937

00:34:54.580 --> 00:34:55.080 sac.

NOTE Confidence: 0.9330826

00:34:55.940 --> 00:34:56.980 If you look if you

NOTE Confidence: 0.9330826

00:34:56.980 --> 00:34:58.420 use that, you probably say

NOTE Confidence: 0.9330826

00:34:58.420 --> 00:34:59.380 this is probably a pseudo

NOTE Confidence: 0.9330826

00:34:59.380 --> 00:35:01.065 aneurysm because it suggests that

NOTE Confidence: 0.9330826

00:35:01.065 --> 00:35:02.665 there's an abrupt cutoff between

NOTE Confidence: 0.94688725

00:35:03.145 --> 00:35:04.185 if you look at the,

NOTE Confidence: 0.94688725

00:35:04.505 --> 00:35:06.185 infra lateral wall and the

NOTE Confidence: 0.94688725

00:35:06.185 --> 00:35:07.625 beginning of the sacs, it

NOTE Confidence: 0.94688725

00:35:07.625 --> 00:35:09.225 looks like I didn't couldn't

NOTE Confidence: 0.94688725

00:35:09.225 --> 00:35:11.244 really appreciate any tapering there.

NOTE Confidence: 0.99799454

00:35:11.545 --> 00:35:13.489 So and that tells you,

NOTE Confidence: 0.97675633

00:35:14.190 --> 00:35:15.630 the limitation. It tells the

NOTE Confidence: 0.97675633

00:35:15.630 --> 00:35:17.010 limitation of all these,

NOTE Confidence: 0.99655294

00:35:18.030 --> 00:35:18.530 features.

NOTE Confidence: 0.96596694

00:35:19.070 --> 00:35:21.230 Right? So where MRI actually

NOTE Confidence: 0.96596694

00:35:21.230 --> 00:35:22.830 stands out is in the

NOTE Confidence: 0.96596694

00:35:22.830 --> 00:35:23.810 tissue characterization.

NOTE Confidence: 0.97335213

00:35:24.525 --> 00:35:25.645 So we can actually look

NOTE Confidence: 0.97335213

00:35:25.645 --> 00:35:26.684 at the tissue and can

NOTE Confidence: 0.97335213

00:35:26.684 --> 00:35:28.145 tell exactly what we,

NOTE Confidence: 0.92206585

00:35:28.605 --> 00:35:29.424 dealing with.

NOTE Confidence: 0.9304086

00:35:29.724 --> 00:35:30.765 And that is what is

NOTE Confidence: 0.9304086

00:35:30.765 --> 00:35:32.204 shown in the zoom out,

NOTE Confidence: 0.980743

00:35:32.605 --> 00:35:33.085 image,

NOTE Confidence: 0.99689656

00:35:33.484 --> 00:35:34.305 on the right.

NOTE Confidence: 0.96646655

00:35:34.765 --> 00:35:35.265 So,

NOTE Confidence: 0.93309903

00:35:36.285 --> 00:35:37.885 if you wanna put your

NOTE Confidence: 0.93309903

00:35:37.885 --> 00:35:39.910 cursor there. So the the

NOTE Confidence: 0.93309903

00:35:39.910 --> 00:35:41.510 dark part no. The dark

NOTE Confidence: 0.93309903

00:35:41.510 --> 00:35:42.870 part yeah. So that's a

NOTE Confidence: 0.93309903

00:35:42.870 --> 00:35:43.370 thrombus.

NOTE Confidence: 0.9776592

00:35:43.750 --> 00:35:44.969 So we use a dedicated,

NOTE Confidence: 0.9754084

00:35:46.950 --> 00:35:48.550 MRI image with,

NOTE Confidence: 0.8708079

00:35:49.590 --> 00:35:51.110 called a long TI image

NOTE Confidence: 0.8708079

00:35:51.110 --> 00:35:52.815 to look at, thrombus with

NOTE Confidence: 0.8708079

00:35:52.974 --> 00:35:54.515 actually have very high sensitivity

NOTE Confidence: 0.8708079

00:35:54.575 --> 00:35:55.315 and specificity.

NOTE Confidence: 0.96902573

00:35:55.855 --> 00:35:57.214 So that tells you that's

NOTE Confidence: 0.96902573

00:35:57.214 --> 00:35:57.795 a thrombus.

NOTE Confidence: 0.9647249

00:35:58.175 --> 00:35:59.614 And then next after that,

NOTE Confidence: 0.9647249

00:35:59.614 --> 00:36:01.155 you see the white line.

NOTE Confidence: 0.97027165

00:36:01.775 --> 00:36:03.295 So that white line actually

NOTE Confidence: 0.97027165

00:36:03.295 --> 00:36:04.835 is the infected myocardium.

NOTE Confidence: 0.9466586

00:36:06.810 --> 00:36:07.850 So that tells you there

NOTE Confidence: 0.9466586

00:36:07.850 --> 00:36:09.050 is, like, a a dead

NOTE Confidence: 0.9466586

00:36:09.050 --> 00:36:10.970 myocardial tissue there. And then

NOTE Confidence: 0.9466586

00:36:10.970 --> 00:36:12.430 after that is that

NOTE Confidence: 0.95532584

00:36:12.810 --> 00:36:14.090 dark line. So that's the

NOTE Confidence: 0.95532584

00:36:14.090 --> 00:36:14.590 pericardium.

NOTE Confidence: 0.9969964

00:36:15.450 --> 00:36:17.130 So this is actually the

NOTE Confidence: 0.9969964

00:36:17.130 --> 00:36:18.830 most specific way

NOTE Confidence: 0.99719137

00:36:19.224 --> 00:36:20.984 to diagnose to differentiate it

NOTE Confidence: 0.99719137

00:36:20.984 --> 00:36:21.464 from,

NOTE Confidence: 0.8596816

00:36:22.025 --> 00:36:22.925 pseudo aneurysm.

NOTE Confidence: 0.99343014

00:36:23.305 --> 00:36:24.425 If it was a pseudo

NOTE Confidence: 0.99343014

00:36:24.425 --> 00:36:26.105 aneurysm, we're not gonna have

NOTE Confidence: 0.99343014

00:36:26.105 --> 00:36:26.605 that

NOTE Confidence: 0.97619486

00:36:26.905 --> 00:36:28.585 white line. So because there's

NOTE Confidence: 0.97619486

00:36:28.585 --> 00:36:30.265 no there's no myocardial tissue

NOTE Confidence: 0.97619486

00:36:30.265 --> 00:36:31.704 there. So all we're gonna

NOTE Confidence: 0.97619486

00:36:31.704 --> 00:36:33.085 have is just a pericardial

NOTE Confidence: 0.97619486

00:36:33.305 --> 00:36:33.805 tissue,

NOTE Confidence: 0.9728926

00:36:34.260 --> 00:36:35.620 which most time is going

NOTE Confidence: 0.9728926

00:36:35.620 --> 00:36:36.200 to be,

NOTE Confidence: 0.99811363

00:36:36.739 --> 00:36:37.239 enhanced

NOTE Confidence: 0.96962935

00:36:37.700 --> 00:36:38.760 because it's inflamed.

NOTE Confidence: 0.91288596

00:36:39.219 --> 00:36:40.900 So this actually, I think

NOTE Confidence: 0.91288596

00:36:40.900 --> 00:36:41.219 it's,

NOTE Confidence: 0.9598486

00:36:42.340 --> 00:36:43.540 puts the question to bed

NOTE Confidence: 0.9598486

00:36:43.540 --> 00:36:45.219 in in terms of whether

NOTE Confidence: 0.9598486

00:36:45.219 --> 00:36:47.300 this is, aneurysm or pseudo

NOTE Confidence: 0.9598486

00:36:47.300 --> 00:36:47.800 aneurysm.

NOTE Confidence: 0.98412496

00:36:49.344 --> 00:36:50.085 Next slide.

NOTE Confidence: 0.9900042

00:36:51.185 --> 00:36:51.665 So,

NOTE Confidence: 0.9416473

00:36:52.065 --> 00:36:53.905 I guess this also was

NOTE Confidence: 0.9416473

00:36:53.905 --> 00:36:55.105 acquired just to,

NOTE Confidence: 0.9926052

00:36:56.705 --> 00:36:57.765 look at the,

NOTE Confidence: 0.88484097

00:36:58.545 --> 00:36:59.525 thrombus burden.

NOTE Confidence: 0.94750285

00:36:59.905 --> 00:37:00.864 It's still the,

NOTE Confidence: 0.9333115

00:37:01.585 --> 00:37:03.125 delayed enhancement imaging.

NOTE Confidence: 0.8076661

00:37:03.579 --> 00:37:04.700 And what it's showing here

NOTE Confidence: 0.8076661

00:37:04.700 --> 00:37:06.160 is just short axis stacks

NOTE Confidence: 0.99301267

00:37:06.700 --> 00:37:07.200 from,

NOTE Confidence: 0.9299462

00:37:07.819 --> 00:37:09.420 like, the base to the

NOTE Confidence: 0.9299462

00:37:09.420 --> 00:37:11.099 apex of the heart. And

NOTE Confidence: 0.9299462

00:37:11.099 --> 00:37:12.619 as you can see from

NOTE Confidence: 0.9299462

00:37:12.619 --> 00:37:13.980 the from the base of

NOTE Confidence: 0.9299462

00:37:13.980 --> 00:37:15.180 the ape once we start

NOTE Confidence: 0.9299462

00:37:15.180 --> 00:37:16.219 getting to the mid portion,

NOTE Confidence: 0.9299462

00:37:16.219 --> 00:37:18.299 we start seeing thrombosis in

NOTE Confidence: 0.9299462

00:37:18.299 --> 00:37:18.799 the

NOTE Confidence: 0.7570141

00:37:19.235 --> 00:37:20.775 anterior septal wall,

NOTE Confidence: 0.6983274

00:37:21.475 --> 00:37:22.215 number two.

NOTE Confidence: 0.91688865

00:37:22.835 --> 00:37:23.975 Like, you can see thrombosis

NOTE Confidence: 0.91688865

00:37:24.114 --> 00:37:25.315 lying there. And as you

NOTE Confidence: 0.91688865

00:37:25.315 --> 00:37:27.495 move down from two, three

NOTE Confidence: 0.9333422

00:37:28.594 --> 00:37:29.875 down to seven, then you

NOTE Confidence: 0.9333422

00:37:29.875 --> 00:37:32.020 can start seeing additional thrombores

NOTE Confidence: 0.9333422

00:37:32.160 --> 00:37:32.660 more

NOTE Confidence: 0.99292326

00:37:33.119 --> 00:37:33.920 towards the,

NOTE Confidence: 0.9138496

00:37:34.480 --> 00:37:36.239 latter the epicolateral wall. So

NOTE Confidence: 0.9138496

00:37:36.239 --> 00:37:37.300 it just give you, like,

NOTE Confidence: 0.9138496

00:37:37.599 --> 00:37:38.880 an assessment of,

NOTE Confidence: 0.96285594

00:37:39.359 --> 00:37:40.960 the thrombores burden. So I

NOTE Confidence: 0.96285594

00:37:40.960 --> 00:37:42.239 think this is just an

NOTE Confidence: 0.96285594

00:37:42.239 --> 00:37:42.739 additional

NOTE Confidence: 0.97252464

00:37:44.744 --> 00:37:45.785 information that,

NOTE Confidence: 0.98061895

00:37:46.265 --> 00:37:47.545 MRI can give in this,

NOTE Confidence: 0.96244824

00:37:48.025 --> 00:37:48.525 patient.

NOTE Confidence: 0.95338506

00:37:49.864 --> 00:37:50.585 And I think you have

NOTE Confidence: 0.95338506

00:37:50.585 --> 00:37:51.944 a slide. Okay. So this

NOTE Confidence: 0.95338506

00:37:51.944 --> 00:37:52.344 is just,

NOTE Confidence: 0.877264

00:37:53.545 --> 00:37:55.884 teaching points that, Alias highlighted

NOTE Confidence: 0.9305069

00:37:56.184 --> 00:37:56.825 as far as,

NOTE Confidence: 0.9550069

00:37:57.530 --> 00:37:58.989 role of cardiac MRI,

NOTE Confidence: 0.9642288

00:37:59.369 --> 00:38:00.589 in this kind of patient.

NOTE Confidence: 0.88415724

00:38:00.890 --> 00:38:02.730 So as, shown in previous

NOTE Confidence: 0.88415724

00:38:02.730 --> 00:38:03.930 slide, it provides the best

NOTE Confidence: 0.88415724

00:38:03.930 --> 00:38:04.750 issue characterization.

NOTE Confidence: 0.90218645

00:38:05.050 --> 00:38:05.950 It's the most,

NOTE Confidence: 0.9995906

00:38:06.969 --> 00:38:07.469 specific

NOTE Confidence: 0.9823645

00:38:08.089 --> 00:38:10.430 imaging modality to differentiate between,

NOTE Confidence: 0.9379656

00:38:10.810 --> 00:38:12.750 true aneurysm and pseudo aneurysm.

NOTE Confidence: 0.9827506

00:38:13.725 --> 00:38:15.165 It's the gold standard for

NOTE Confidence: 0.9827506

00:38:15.165 --> 00:38:16.145 thrombus imaging.

NOTE Confidence: 0.84230834

00:38:16.765 --> 00:38:17.745 So the sensitivity,

NOTE Confidence: 0.9260241

00:38:18.445 --> 00:38:20.045 I believe, is from the

NOTE Confidence: 0.9260241

00:38:20.045 --> 00:38:22.705 traditional delayed enhancement imaging with,

NOTE Confidence: 0.95052814

00:38:23.485 --> 00:38:23.965 new,

NOTE Confidence: 0.9276335

00:38:24.285 --> 00:38:26.660 modality new new sequences, the

NOTE Confidence: 0.9276335

00:38:26.660 --> 00:38:27.780 long TI, I think the

NOTE Confidence: 0.9276335

00:38:27.780 --> 00:38:28.280 sensitivity

NOTE Confidence: 0.8550458

00:38:28.580 --> 00:38:29.080 for

NOTE Confidence: 0.63187915

00:38:29.380 --> 00:38:30.040 of MRIs

NOTE Confidence: 0.9316116

00:38:30.500 --> 00:38:31.640 in the high 90s.

NOTE Confidence: 0.88647527

00:38:31.940 --> 00:38:33.860 So like ninety studies are

NOTE Confidence: 0.88647527

00:38:33.860 --> 00:38:34.980 up to like ninety eight,

NOTE Confidence: 0.88647527

00:38:34.980 --> 00:38:36.600 ninety eight, ninety nine percent.

NOTE Confidence: 0.88647527

00:38:36.740 --> 00:38:38.180 And the specificity is in

NOTE Confidence: 0.88647527

00:38:38.180 --> 00:38:39.080 the high 90s.

NOTE Confidence: 0.9283651

00:38:39.585 --> 00:38:41.025 So gold standard for thrombus

NOTE Confidence: 0.9283651

00:38:41.025 --> 00:38:42.724 imaging, gold standard for volumetric

NOTE Confidence: 0.9283651

00:38:42.945 --> 00:38:43.445 analysis,

NOTE Confidence: 0.9719993

00:38:43.984 --> 00:38:45.344 and it can also provide,

NOTE Confidence: 0.9719993

00:38:45.665 --> 00:38:47.505 three d anatomical details similar

NOTE Confidence: 0.9719993

00:38:47.505 --> 00:38:49.205 to CT. We typically don't

NOTE Confidence: 0.9719993

00:38:49.425 --> 00:38:50.705 acquire a three d dataset,

NOTE Confidence: 0.9719993

00:38:50.705 --> 00:38:51.665 but it's something that we

NOTE Confidence: 0.9719993

00:38:51.665 --> 00:38:53.265 can do if, needed on

NOTE Confidence: 0.9719993

00:38:53.265 --> 00:38:53.765 MRI.

NOTE Confidence: 0.9953756

00:38:54.369 --> 00:38:54.869 Thanks.

NOTE Confidence: 0.877527

00:38:57.330 --> 00:38:58.950 Thanks, doctor Kintoy.

NOTE Confidence: 0.92607975

00:39:01.330 --> 00:39:02.930 Now we'll go back to

NOTE Confidence: 0.92607975

00:39:02.930 --> 00:39:04.210 our case. With all these

NOTE Confidence: 0.92607975

00:39:04.210 --> 00:39:06.210 imaging findings, we then discussed

NOTE Confidence: 0.92607975

00:39:06.210 --> 00:39:06.710 this,

NOTE Confidence: 0.9979188

00:39:07.425 --> 00:39:08.725 the patient was then discussed

NOTE Confidence: 0.9477622

00:39:09.265 --> 00:39:10.165 in our weekly,

NOTE Confidence: 0.9880614

00:39:11.265 --> 00:39:12.705 VA heart meeting, which is

NOTE Confidence: 0.9880614

00:39:12.705 --> 00:39:13.745 really one of the highlights

NOTE Confidence: 0.9880614

00:39:13.745 --> 00:39:15.185 of being a cardiology fellow

NOTE Confidence: 0.9880614

00:39:15.185 --> 00:39:15.685 here.

NOTE Confidence: 0.98674923

00:39:15.985 --> 00:39:16.805 It's an interdisciplinary

NOTE Confidence: 0.9980213

00:39:17.185 --> 00:39:18.405 conference with cardiology

NOTE Confidence: 0.961075

00:39:18.705 --> 00:39:20.385 and CT surgery attendings and

NOTE Confidence: 0.961075

00:39:20.385 --> 00:39:21.985 fellows spending really all aspects

NOTE Confidence: 0.961075

00:39:21.985 --> 00:39:22.565 of cardiovascular

NOTE Confidence: 0.99188876

00:39:23.025 --> 00:39:23.400 care.

NOTE Confidence: 0.91250473

00:39:25.000 --> 00:39:27.579 Given that there this aneurysm

NOTE Confidence: 0.91250473

00:39:27.719 --> 00:39:29.099 has continued to enlarge

NOTE Confidence: 0.9309941

00:39:29.400 --> 00:39:31.000 and that there was increasing

NOTE Confidence: 0.9309941

00:39:31.000 --> 00:39:32.760 clot burden despite being on

NOTE Confidence: 0.9309941

00:39:32.760 --> 00:39:33.260 anticoagulation,

NOTE Confidence: 0.99965024

00:39:33.799 --> 00:39:34.779 surgical repair

NOTE Confidence: 0.9968945

00:39:35.239 --> 00:39:35.980 was recommended.

NOTE Confidence: 0.91812783

00:39:38.844 --> 00:39:40.625 The patient came to YNH

NOTE Confidence: 0.91812783

00:39:40.844 --> 00:39:41.344 for

NOTE Confidence: 0.97408897

00:39:41.805 --> 00:39:44.125 left ventricular restoration surgery by

NOTE Confidence: 0.97408897

00:39:44.125 --> 00:39:46.364 doctor Roland Ossie. Fortunately, doctor

NOTE Confidence: 0.97408897

00:39:46.364 --> 00:39:47.725 Ossie has a case today.

NOTE Confidence: 0.97408897

00:39:47.725 --> 00:39:48.844 He was unable to join

NOTE Confidence: 0.97408897

00:39:48.844 --> 00:39:49.344 us

NOTE Confidence: 0.8862452

00:39:49.885 --> 00:39:51.645 to go over the nuances

NOTE Confidence: 0.8862452

00:39:51.645 --> 00:39:52.445 of the surgery, and I

NOTE Confidence: 0.8862452

00:39:52.445 --> 00:39:53.405 will do my best to

NOTE Confidence: 0.8862452

00:39:53.405 --> 00:39:55.240 do justice to what really

NOTE Confidence: 0.8862452

00:39:55.240 --> 00:39:56.840 was an incredible surgery. That's

NOTE Confidence: 0.8862452

00:39:56.840 --> 00:39:57.820 for all your security.

NOTE Confidence: 0.917278

00:40:05.400 --> 00:40:06.520 Now the goals of the

NOTE Confidence: 0.917278

00:40:06.520 --> 00:40:08.280 surgery are outlined here. This

NOTE Confidence: 0.917278

00:40:08.440 --> 00:40:09.180 as you can,

NOTE Confidence: 0.9946928

00:40:10.575 --> 00:40:12.255 the principle of addressing a

NOTE Confidence: 0.9946928

00:40:12.255 --> 00:40:12.755 large

NOTE Confidence: 0.9523909

00:40:13.055 --> 00:40:14.675 LV aneurysm are as follows.

NOTE Confidence: 0.9523909

00:40:14.895 --> 00:40:17.474 First, enter the infarcted nonviable

NOTE Confidence: 0.9523909

00:40:17.614 --> 00:40:18.114 tissue.

NOTE Confidence: 0.9649638

00:40:18.494 --> 00:40:20.094 This way, we're not damaging

NOTE Confidence: 0.9649638

00:40:20.094 --> 00:40:21.234 the viable tissue.

NOTE Confidence: 0.9986906

00:40:21.695 --> 00:40:23.234 And the capsule

NOTE Confidence: 0.99287826

00:40:23.535 --> 00:40:24.974 of the aneurysm is actually

NOTE Confidence: 0.99287826

00:40:24.974 --> 00:40:25.135 quite

NOTE Confidence: 0.9775131

00:40:26.330 --> 00:40:27.610 while it's thin, it's quite,

NOTE Confidence: 0.9775131

00:40:27.850 --> 00:40:29.630 it's relatively tough material.

NOTE Confidence: 0.94243383

00:40:31.370 --> 00:40:32.410 This area, as you can

NOTE Confidence: 0.94243383

00:40:32.410 --> 00:40:33.530 see, it will become when

NOTE Confidence: 0.94243383

00:40:33.530 --> 00:40:34.270 this patient,

NOTE Confidence: 0.99632174

00:40:35.050 --> 00:40:36.270 goes under bypass,

NOTE Confidence: 0.9595506

00:40:36.650 --> 00:40:38.170 it will become compressed. And

NOTE Confidence: 0.9595506

00:40:38.170 --> 00:40:40.090 this all this compressed collapsed

NOTE Confidence: 0.9595506

00:40:40.090 --> 00:40:42.225 tissue is all aneurysm, measuring

NOTE Confidence: 0.9595506

00:40:42.225 --> 00:40:43.445 about fifteen centimeters.

NOTE Confidence: 0.52565616

00:40:46.945 --> 00:40:47.185 The

NOTE Confidence: 0.87834173

00:40:49.585 --> 00:40:50.705 now as you can see

NOTE Confidence: 0.87834173

00:40:50.705 --> 00:40:51.765 in the fall, while,

NOTE Confidence: 0.99684054

00:40:52.065 --> 00:40:53.125 you know, we're gonna

NOTE Confidence: 0.98606956

00:40:53.905 --> 00:40:56.000 we're gonna while we reconstruct

NOTE Confidence: 0.98606956

00:40:56.060 --> 00:40:57.180 this, we're gonna also actually

NOTE Confidence: 0.98606956

00:40:57.180 --> 00:40:58.700 keep this collapsed tissue because

NOTE Confidence: 0.98606956

00:40:58.700 --> 00:40:59.900 it can serve as extra

NOTE Confidence: 0.98606956

00:40:59.900 --> 00:41:01.360 tissue for the the surgery.

NOTE Confidence: 0.9674095

00:41:01.900 --> 00:41:03.500 And, typically, the approach is

NOTE Confidence: 0.9674095

00:41:03.500 --> 00:41:04.460 to enter through the middle

NOTE Confidence: 0.9674095

00:41:04.460 --> 00:41:05.360 of the scar.

NOTE Confidence: 0.9717214

00:41:06.940 --> 00:41:08.060 Here, you see the team

NOTE Confidence: 0.9717214

00:41:08.060 --> 00:41:09.680 entering the infarcted tissue.

NOTE Confidence: 0.9770116

00:41:11.184 --> 00:41:12.065 You get a sense of

NOTE Confidence: 0.9770116

00:41:12.065 --> 00:41:13.825 how tough this tissue can

NOTE Confidence: 0.9770116

00:41:13.825 --> 00:41:15.265 become, but also how thin

NOTE Confidence: 0.9770116

00:41:15.265 --> 00:41:15.925 it is,

NOTE Confidence: 0.9195719

00:41:16.625 --> 00:41:18.464 relative to normal LV muscle

NOTE Confidence: 0.9195719

00:41:18.704 --> 00:41:20.325 the the normal LV.

NOTE Confidence: 0.98872614

00:41:20.944 --> 00:41:21.825 In the case upon

NOTE Confidence: 0.97382575

00:41:22.464 --> 00:41:23.744 when they entered the LV

NOTE Confidence: 0.97382575

00:41:23.744 --> 00:41:24.244 cavity,

NOTE Confidence: 0.99056137

00:41:24.600 --> 00:41:26.120 there was a large amount

NOTE Confidence: 0.99056137

00:41:26.120 --> 00:41:27.100 of old clot,

NOTE Confidence: 0.91959107

00:41:28.360 --> 00:41:29.880 which is you which is

NOTE Confidence: 0.91959107

00:41:29.880 --> 00:41:31.580 this, like, yellow and fiberness

NOTE Confidence: 0.94012284

00:41:32.040 --> 00:41:32.540 material,

NOTE Confidence: 0.95651215

00:41:33.160 --> 00:41:34.440 which is consistent with long

NOTE Confidence: 0.95651215

00:41:34.440 --> 00:41:35.960 standing clot as opposed to

NOTE Confidence: 0.95651215

00:41:35.960 --> 00:41:37.000 fresh clot, which would be

NOTE Confidence: 0.95651215

00:41:37.000 --> 00:41:38.360 more red and less well

NOTE Confidence: 0.95651215

00:41:38.360 --> 00:41:38.860 organized.

NOTE Confidence: 0.9631358

00:41:42.135 --> 00:41:43.595 And now after

NOTE Confidence: 0.95643246

00:41:44.055 --> 00:41:45.415 removing the tissue, rather than

NOTE Confidence: 0.95643246

00:41:45.415 --> 00:41:47.015 removing the aneurysmal tissue, its

NOTE Confidence: 0.95643246

00:41:47.015 --> 00:41:48.055 capsular can be used as

NOTE Confidence: 0.95643246

00:41:48.055 --> 00:41:49.175 the end as I mentioned,

NOTE Confidence: 0.95643246

00:41:49.175 --> 00:41:49.655 at the end of the

NOTE Confidence: 0.95643246

00:41:49.655 --> 00:41:51.035 case to reinforce closure

NOTE Confidence: 0.9791238

00:41:51.655 --> 00:41:52.775 of the incision in the

NOTE Confidence: 0.9791238

00:41:52.775 --> 00:41:53.275 LV.

NOTE Confidence: 0.9849686

00:41:56.070 --> 00:41:57.110 The photo on the left

NOTE Confidence: 0.9849686

00:41:57.110 --> 00:41:58.550 shows the aneurysm, which has

NOTE Confidence: 0.9849686

00:41:58.550 --> 00:41:59.690 been opened up,

NOTE Confidence: 0.93388075

00:42:00.230 --> 00:42:02.070 and multiple black sutures are

NOTE Confidence: 0.93388075

00:42:02.070 --> 00:42:03.430 there to retract the wall

NOTE Confidence: 0.93388075

00:42:03.430 --> 00:42:04.870 of the the walls of

NOTE Confidence: 0.93388075

00:42:04.870 --> 00:42:06.390 the aneurysm and keep it

NOTE Confidence: 0.93388075

00:42:06.390 --> 00:42:07.290 open, providing

NOTE Confidence: 0.99932015

00:42:07.670 --> 00:42:08.969 exposure to the surgeons.

NOTE Confidence: 0.9741851

00:42:09.465 --> 00:42:10.665 The white tissue, as you

NOTE Confidence: 0.9741851

00:42:10.665 --> 00:42:12.125 see, that's all scar.

NOTE Confidence: 0.9683342

00:42:15.305 --> 00:42:17.225 The suction is is is

NOTE Confidence: 0.9683342

00:42:17.225 --> 00:42:19.565 inside the true LV cavity,

NOTE Confidence: 0.9683342

00:42:19.625 --> 00:42:20.425 and you can see the

NOTE Confidence: 0.9683342

00:42:20.425 --> 00:42:22.500 mitral valve and the trabeculations

NOTE Confidence: 0.9683342

00:42:22.640 --> 00:42:24.160 of the LV. And one

NOTE Confidence: 0.9683342

00:42:24.160 --> 00:42:25.440 thing to notice is that

NOTE Confidence: 0.9683342

00:42:25.440 --> 00:42:27.060 these trabeculations are gone,

NOTE Confidence: 0.99774486

00:42:27.680 --> 00:42:28.580 in the aneurysms

NOTE Confidence: 0.9805583

00:42:28.960 --> 00:42:30.420 in the aneurysmal segment.

NOTE Confidence: 0.98475134

00:42:32.720 --> 00:42:34.080 Also, to highlight the picture

NOTE Confidence: 0.98475134

00:42:34.080 --> 00:42:35.174 on the right, you can

NOTE Confidence: 0.98475134

00:42:35.295 --> 00:42:37.454 shows the small ventricular septal

NOTE Confidence: 0.98475134

00:42:37.454 --> 00:42:38.575 defect that will also need

NOTE Confidence: 0.98475134

00:42:38.575 --> 00:42:39.614 to be closed when the

NOTE Confidence: 0.98475134

00:42:39.614 --> 00:42:40.755 aneurysm is patched.

NOTE Confidence: 0.9958097

00:42:45.614 --> 00:42:47.075 Now one of the most

NOTE Confidence: 0.9994909

00:42:47.410 --> 00:42:48.850 important parts of the operation

NOTE Confidence: 0.9994909

00:42:48.850 --> 00:42:49.750 is to recreate

NOTE Confidence: 0.98766387

00:42:50.210 --> 00:42:51.890 this new LV cavity with

NOTE Confidence: 0.98766387

00:42:51.890 --> 00:42:53.190 the appropriate geometry.

NOTE Confidence: 0.9593202

00:42:55.250 --> 00:42:56.530 And to do this, though,

NOTE Confidence: 0.9593202

00:42:56.530 --> 00:42:57.969 we're gonna be placing a

NOTE Confidence: 0.9593202

00:42:58.210 --> 00:42:59.750 they're gonna place a patch

NOTE Confidence: 0.98638844

00:43:00.315 --> 00:43:01.194 at the mouth of the

NOTE Confidence: 0.98638844

00:43:01.194 --> 00:43:03.114 aneurysm sac. In this case,

NOTE Confidence: 0.98638844

00:43:03.114 --> 00:43:04.474 it's a big area, and

NOTE Confidence: 0.98638844

00:43:04.474 --> 00:43:05.535 there's different ways,

NOTE Confidence: 0.82295555

00:43:05.915 --> 00:43:06.954 after talking with doctor Austin

NOTE Confidence: 0.82295555

00:43:06.954 --> 00:43:08.155 and doctor Pelletier that there

NOTE Confidence: 0.82295555

00:43:08.155 --> 00:43:09.135 are to do this.

NOTE Confidence: 0.9749481

00:43:10.155 --> 00:43:11.355 In this case, a bovine

NOTE Confidence: 0.9749481

00:43:11.355 --> 00:43:13.295 pericardium was used along with

NOTE Confidence: 0.741784

00:43:14.730 --> 00:43:15.230 felt,

NOTE Confidence: 0.62193143

00:43:15.530 --> 00:43:16.750 felt, pledge

NOTE Confidence: 0.81617403

00:43:18.730 --> 00:43:20.510 it to reinforce the closure.

NOTE Confidence: 0.9034673

00:43:22.890 --> 00:43:24.330 And sutures are placed in

NOTE Confidence: 0.9034673

00:43:24.330 --> 00:43:25.070 a circumferential

NOTE Confidence: 0.9996389

00:43:25.450 --> 00:43:25.950 manner

NOTE Confidence: 0.96594757

00:43:26.489 --> 00:43:27.450 around the neck of the

NOTE Confidence: 0.96594757

00:43:27.450 --> 00:43:28.810 aneurysm and then pass through

NOTE Confidence: 0.96594757

00:43:28.810 --> 00:43:29.550 the patch.

NOTE Confidence: 0.9997584

00:43:30.515 --> 00:43:32.375 The most important thing is

NOTE Confidence: 0.98591274

00:43:32.755 --> 00:43:34.614 to ensure the LV cavity

NOTE Confidence: 0.98591274

00:43:34.755 --> 00:43:36.135 is not too small.

NOTE Confidence: 0.9119725

00:43:37.155 --> 00:43:37.655 In

NOTE Confidence: 0.97164106

00:43:37.955 --> 00:43:39.255 some cases, they,

NOTE Confidence: 0.9976581

00:43:39.795 --> 00:43:40.695 they would actually

NOTE Confidence: 0.99549973

00:43:41.395 --> 00:43:42.855 fill a balloon with saline

NOTE Confidence: 0.98619634

00:43:43.155 --> 00:43:44.455 that's in that's

NOTE Confidence: 0.9989828

00:43:44.840 --> 00:43:46.120 that's to the right size

NOTE Confidence: 0.9989828

00:43:46.120 --> 00:43:47.739 based on body surface area

NOTE Confidence: 0.6810519

00:43:48.440 --> 00:43:48.940 and,

NOTE Confidence: 0.9732768

00:43:50.520 --> 00:43:51.560 use that to sort of

NOTE Confidence: 0.9732768

00:43:51.560 --> 00:43:52.860 give you the right geometry

NOTE Confidence: 0.9732768

00:43:53.160 --> 00:43:54.280 of the LV and the

NOTE Confidence: 0.9732768

00:43:54.280 --> 00:43:55.640 size. In this case, the

NOTE Confidence: 0.9732768

00:43:55.640 --> 00:43:57.560 aneurysm was so large and

NOTE Confidence: 0.9732768

00:43:57.560 --> 00:43:58.620 it wasn't needed.

NOTE Confidence: 0.9562159

00:44:00.065 --> 00:44:01.265 The picture on the right

NOTE Confidence: 0.9562159

00:44:01.265 --> 00:44:02.245 shows the

NOTE Confidence: 0.94850093

00:44:02.545 --> 00:44:03.605 the patch repair,

NOTE Confidence: 0.9921529

00:44:04.385 --> 00:44:05.585 and now the repair is

NOTE Confidence: 0.9921529

00:44:05.585 --> 00:44:06.565 gonna be reinforced

NOTE Confidence: 0.9957352

00:44:07.425 --> 00:44:09.425 with the aneurysmal tissue on

NOTE Confidence: 0.9957352

00:44:09.425 --> 00:44:10.325 top of it.

NOTE Confidence: 0.8448345

00:44:11.585 --> 00:44:13.364 That that's why it doesn't

NOTE Confidence: 0.88303703

00:44:13.760 --> 00:44:15.599 just close the aneurysm because,

NOTE Confidence: 0.88303703

00:44:15.599 --> 00:44:16.880 you know, you can imagine

NOTE Confidence: 0.88303703

00:44:16.880 --> 00:44:17.680 if you do pick the

NOTE Confidence: 0.88303703

00:44:17.680 --> 00:44:19.219 edges where the belt is

NOTE Confidence: 0.88303703

00:44:19.280 --> 00:44:20.420 and and you close,

NOTE Confidence: 0.8620535

00:44:20.719 --> 00:44:22.319 but they create a l

NOTE Confidence: 0.8620535

00:44:22.319 --> 00:44:23.599 b cavity that's too small.

NOTE Confidence: 0.8620535

00:44:23.599 --> 00:44:24.640 So that's why they use

NOTE Confidence: 0.8620535

00:44:24.640 --> 00:44:25.380 this patch

NOTE Confidence: 0.9899551

00:44:26.079 --> 00:44:26.739 to allow,

NOTE Confidence: 0.7437862

00:44:27.280 --> 00:44:28.420 you know, not preload.

NOTE Confidence: 0.6835672

00:44:29.565 --> 00:44:30.285 So for the vision, they

NOTE Confidence: 0.6835672

00:44:30.285 --> 00:44:31.425 still don't have there.

NOTE Confidence: 0.9841961

00:44:35.724 --> 00:44:37.585 So this is the completed

NOTE Confidence: 0.9841961

00:44:37.645 --> 00:44:38.145 restoration,

NOTE Confidence: 0.999555

00:44:39.005 --> 00:44:40.625 and the results were excellent.

NOTE Confidence: 0.9019413

00:44:41.405 --> 00:44:42.785 Here I have the

NOTE Confidence: 0.8495199

00:44:44.259 --> 00:44:45.779 the presurgery and post op

NOTE Confidence: 0.8495199

00:44:45.779 --> 00:44:46.279 TES.

NOTE Confidence: 0.9157022

00:44:48.099 --> 00:44:49.539 As a little difficult to

NOTE Confidence: 0.9157022

00:44:49.539 --> 00:44:51.319 appreciate, but the the LVEF

NOTE Confidence: 0.889062

00:44:51.619 --> 00:44:53.219 is tremendously improved, probably to

NOTE Confidence: 0.889062

00:44:53.219 --> 00:44:54.759 forty to forty five percent,

NOTE Confidence: 0.889062

00:44:54.819 --> 00:44:55.859 and there was no evidence

NOTE Confidence: 0.889062

00:44:55.859 --> 00:44:56.599 of thrombus.

NOTE Confidence: 0.9323303

00:44:58.914 --> 00:45:00.035 In terms of the VSD

NOTE Confidence: 0.9323303

00:45:00.035 --> 00:45:00.835 shunt, as you can see,

NOTE Confidence: 0.9323303

00:45:00.835 --> 00:45:02.035 presurgery, there was a a

NOTE Confidence: 0.9323303

00:45:02.035 --> 00:45:03.474 shunt that's no longer a

NOTE Confidence: 0.9323303

00:45:03.474 --> 00:45:05.075 a shunt going from left

NOTE Confidence: 0.9323303

00:45:05.075 --> 00:45:05.974 to right flow.

NOTE Confidence: 0.9924376

00:45:07.875 --> 00:45:08.914 And then in terms of

NOTE Confidence: 0.9924376

00:45:08.914 --> 00:45:10.055 the mitral valve

NOTE Confidence: 0.9987561

00:45:10.610 --> 00:45:11.110 apparatus,

NOTE Confidence: 0.97456694

00:45:11.489 --> 00:45:13.170 the patient continued to have

NOTE Confidence: 0.97456694

00:45:13.170 --> 00:45:14.070 stable MR,

NOTE Confidence: 0.9792503

00:45:14.930 --> 00:45:15.989 meaning that it was,

NOTE Confidence: 0.8933927

00:45:16.450 --> 00:45:16.950 intact.

NOTE Confidence: 0.663143

00:45:17.810 --> 00:45:19.190 Were the corners reshot

NOTE Confidence: 0.7961936

00:45:20.770 --> 00:45:21.510 the LIV

NOTE Confidence: 0.9491701

00:45:21.810 --> 00:45:23.110 occlusion was left?

NOTE Confidence: 0.94353455

00:45:24.555 --> 00:45:25.835 We reshot them when she

NOTE Confidence: 0.94353455

00:45:25.835 --> 00:45:27.215 originally presented. They haven't

NOTE Confidence: 0.9216203

00:45:28.875 --> 00:45:30.234 they were reshot in planning

NOTE Confidence: 0.9216203

00:45:30.234 --> 00:45:31.055 for the procedure.

NOTE Confidence: 0.93592477

00:45:32.555 --> 00:45:32.955 But,

NOTE Confidence: 0.53145677

00:45:33.435 --> 00:45:34.175 good question.

NOTE Confidence: 0.45250082

00:45:35.435 --> 00:45:35.935 Surgery.

NOTE Confidence: 0.98418915

00:45:43.010 --> 00:45:44.630 The patient had an uncomplicated

NOTE Confidence: 0.98418915

00:45:44.770 --> 00:45:45.830 post op course.

NOTE Confidence: 0.97416687

00:45:46.130 --> 00:45:47.250 She came in. She was

NOTE Confidence: 0.97416687

00:45:47.250 --> 00:45:49.270 transferred to CTICU on epinephrine

NOTE Confidence: 0.90229815

00:45:49.570 --> 00:45:50.390 and norepinephrine.

NOTE Confidence: 0.94042706

00:45:51.170 --> 00:45:52.344 But within four days, was

NOTE Confidence: 0.94042706

00:45:52.344 --> 00:45:53.965 weaned off pressers and extubated.

NOTE Confidence: 0.94042706

00:45:54.025 --> 00:45:55.065 She was transferred to the

NOTE Confidence: 0.94042706

00:45:55.065 --> 00:45:56.344 floor on day post op

NOTE Confidence: 0.94042706

00:45:56.344 --> 00:45:57.085 day four.

NOTE Confidence: 0.93461174

00:45:57.385 --> 00:45:58.825 And then with the and

NOTE Confidence: 0.93461174

00:45:58.825 --> 00:45:59.945 post op day seven, she

NOTE Confidence: 0.93461174

00:45:59.945 --> 00:46:01.405 was discharged on apixaban

NOTE Confidence: 0.99701136

00:46:01.945 --> 00:46:02.685 and aspirin.

NOTE Confidence: 0.9959627

00:46:03.864 --> 00:46:04.364 And

NOTE Confidence: 0.9475489

00:46:05.020 --> 00:46:06.460 overall, the patient's doing quite

NOTE Confidence: 0.9475489

00:46:06.460 --> 00:46:06.940 well.

NOTE Confidence: 0.92940456

00:46:07.340 --> 00:46:09.180 Doctor Phillips just saw recently,

NOTE Confidence: 0.92940456

00:46:09.180 --> 00:46:10.140 she still has this mild

NOTE Confidence: 0.92940456

00:46:10.140 --> 00:46:11.440 dyspnea that's unchanged.

NOTE Confidence: 0.9951568

00:46:12.220 --> 00:46:12.720 And

NOTE Confidence: 0.97964627

00:46:13.100 --> 00:46:14.460 we have this is her

NOTE Confidence: 0.97964627

00:46:14.460 --> 00:46:14.960 echo,

NOTE Confidence: 0.88133866

00:46:15.500 --> 00:46:17.820 TT, transthoracic echo, one month

NOTE Confidence: 0.88133866

00:46:17.820 --> 00:46:18.720 post op,

NOTE Confidence: 0.9993705

00:46:19.955 --> 00:46:20.455 showing

NOTE Confidence: 0.97719496

00:46:21.155 --> 00:46:22.515 that her EF is still

NOTE Confidence: 0.97719496

00:46:22.515 --> 00:46:23.955 maintaining a forty to forty

NOTE Confidence: 0.97719496

00:46:23.955 --> 00:46:24.614 five percent,

NOTE Confidence: 0.99778116

00:46:26.195 --> 00:46:27.715 without any signs of

NOTE Confidence: 0.9007211

00:46:28.435 --> 00:46:30.135 no signs of LV thrombus

NOTE Confidence: 0.9149231

00:46:31.795 --> 00:46:33.815 and then trace mitral regurgitation.

NOTE Confidence: 0.9835461

00:46:36.130 --> 00:46:37.090 So with that, I would

NOTE Confidence: 0.9835461

00:46:37.090 --> 00:46:37.590 like

NOTE Confidence: 0.9305184

00:46:38.130 --> 00:46:38.790 to conclude.

NOTE Confidence: 0.98059434

00:46:40.050 --> 00:46:41.650 LV aneurysms are a possible

NOTE Confidence: 0.98059434

00:46:41.650 --> 00:46:44.390 complication of transmural myocardial infarctions.

NOTE Confidence: 0.9993755

00:46:45.810 --> 00:46:46.310 Echocardiography

NOTE Confidence: 0.98613316

00:46:47.395 --> 00:46:48.915 is the first line imaging

NOTE Confidence: 0.98613316

00:46:48.915 --> 00:46:49.415 modality,

NOTE Confidence: 0.98826873

00:46:49.715 --> 00:46:51.715 but less sensitive than CT

NOTE Confidence: 0.98826873

00:46:51.715 --> 00:46:53.495 and MRI, especially for assessing

NOTE Confidence: 0.98945105

00:46:54.035 --> 00:46:56.055 aneurysm size and thrombus burden.

NOTE Confidence: 0.9783807

00:46:57.555 --> 00:46:58.995 CT and MRI provide the

NOTE Confidence: 0.9783807

00:46:58.995 --> 00:47:00.675 most accurate assessment of of

NOTE Confidence: 0.9783807

00:47:00.675 --> 00:47:02.455 aneurysm size and thrombus

NOTE Confidence: 0.9865191

00:47:05.309 --> 00:47:05.809 burden.

NOTE Confidence: 0.99768764

00:47:06.190 --> 00:47:07.469 As for this case, surgery

NOTE Confidence: 0.99768764

00:47:07.469 --> 00:47:08.289 should be considered

NOTE Confidence: 0.8942131

00:47:08.589 --> 00:47:10.049 if patients have a concomitant

NOTE Confidence: 0.8942131

00:47:10.190 --> 00:47:12.109 cardiac surgery for significant valve

NOTE Confidence: 0.8942131

00:47:12.109 --> 00:47:12.609 disease

NOTE Confidence: 0.9781261

00:47:13.069 --> 00:47:13.969 or bypass

NOTE Confidence: 0.86582536

00:47:14.910 --> 00:47:16.289 coronary bypass surgery.

NOTE Confidence: 0.9678741

00:47:17.184 --> 00:47:18.885 Ventricular arrhythmia is unresponsive

NOTE Confidence: 0.94365394

00:47:19.664 --> 00:47:20.164 to,

NOTE Confidence: 0.9204774

00:47:21.424 --> 00:47:23.684 medical or ablation therapies, refractory

NOTE Confidence: 0.9204774

00:47:23.744 --> 00:47:25.844 heart failure despite medical therapy,

NOTE Confidence: 0.96433824

00:47:26.145 --> 00:47:27.424 and as for this case,

NOTE Confidence: 0.96433824

00:47:27.424 --> 00:47:29.984 increasing thrombosis burden despite appropriate

NOTE Confidence: 0.96433824

00:47:29.984 --> 00:47:30.484 anticoagulation.

NOTE Confidence: 0.9880216

00:47:31.469 --> 00:47:32.270 And what I hope I've

NOTE Confidence: 0.9880216

00:47:32.270 --> 00:47:33.630 demonstrated is that this case

NOTE Confidence: 0.9880216

00:47:33.630 --> 00:47:35.250 highlights the importance of multidisciplinary

NOTE Confidence: 0.9277732

00:47:35.790 --> 00:47:37.330 cardiac teams and the management

NOTE Confidence: 0.7251571

00:47:38.109 --> 00:47:39.489 complex LV aneurysms.

NOTE Confidence: 0.91467375

00:47:42.030 --> 00:47:43.105 I'd like to acknowledge all

NOTE Confidence: 0.91467375

00:47:43.140 --> 00:47:43.390 it's

NOTE Confidence: 0.96031183

00:47:43.950 --> 00:47:44.724 because because it took such

NOTE Confidence: 0.96031183

00:47:44.724 --> 00:47:45.685 a large team for this

NOTE Confidence: 0.96031183

00:47:45.685 --> 00:47:46.885 case, I'd like to acknowledge

NOTE Confidence: 0.96031183

00:47:46.885 --> 00:47:48.405 really everyone that helped put

NOTE Confidence: 0.96031183

00:47:48.405 --> 00:47:50.025 this case presentation together.

NOTE Confidence: 0.9665432

00:47:50.885 --> 00:47:52.185 Doctor Charles Phillips,

NOTE Confidence: 0.94542503

00:47:52.885 --> 00:47:54.825 who's the patient's primary cardiologist

NOTE Confidence: 0.9597198

00:47:55.125 --> 00:47:56.724 and was, my mentor for

NOTE Confidence: 0.9597198

00:47:56.724 --> 00:47:57.464 this presentation.

NOTE Confidence: 0.90204775

00:47:59.070 --> 00:48:01.250 Appreciate doctor Sugang, doctor Mora,

NOTE Confidence: 0.9959669

00:48:01.790 --> 00:48:02.610 and doctor

NOTE Confidence: 0.8284478

00:48:02.910 --> 00:48:03.410 Akintoy's,

NOTE Confidence: 0.9367954

00:48:05.310 --> 00:48:06.690 guidance on the imaging,

NOTE Confidence: 0.8570118

00:48:07.070 --> 00:48:09.330 and then, doctor Roland Ossie,

NOTE Confidence: 0.5591374

00:48:09.710 --> 00:48:10.850 doctor Palatir,

NOTE Confidence: 0.9928771

00:48:11.310 --> 00:48:12.750 and doctor Williams for their

NOTE Confidence: 0.9928771

00:48:12.750 --> 00:48:13.890 input on the surgery.

NOTE Confidence: 0.9390316

00:48:15.225 --> 00:48:16.845 Certainly, we have an excellent

NOTE Confidence: 0.9390316

00:48:16.905 --> 00:48:17.405 VA.

NOTE Confidence: 0.9353199

00:48:19.545 --> 00:48:20.985 Our VA Connect health system

NOTE Confidence: 0.9353199

00:48:20.985 --> 00:48:22.025 is excellent. It's one of

NOTE Confidence: 0.9353199

00:48:22.025 --> 00:48:22.985 the highlights of being a

NOTE Confidence: 0.9353199

00:48:22.985 --> 00:48:23.805 fellow here,

NOTE Confidence: 0.9986737

00:48:24.745 --> 00:48:26.345 and it's really rich to

NOTE Confidence: 0.9986737

00:48:26.345 --> 00:48:28.125 see the collaboration between

NOTE Confidence: 0.9615136

00:48:29.010 --> 00:48:30.210 them and Yale New Haven

NOTE Confidence: 0.9615136

00:48:30.210 --> 00:48:30.710 Hospital.

NOTE Confidence: 0.92956

00:48:31.090 --> 00:48:32.050 And I like to also

NOTE Confidence: 0.92956

00:48:32.050 --> 00:48:33.410 acknowledge the continued support of

NOTE Confidence: 0.92956

00:48:33.410 --> 00:48:35.330 the cardiology fellowship program over

NOTE Confidence: 0.92956

00:48:35.330 --> 00:48:36.390 the last three years.

NOTE Confidence: 0.9768554

00:48:37.170 --> 00:48:38.290 And with that, we'll be

NOTE Confidence: 0.9768554

00:48:38.290 --> 00:48:39.510 happy to take any questions.

NOTE Confidence: 0.43940097

00:48:46.065 --> 00:48:47.285 Okay. Fantastic

NOTE Confidence: 0.96701026

00:48:48.065 --> 00:48:48.565 job.

NOTE Confidence: 0.9481796

00:48:49.025 --> 00:48:49.525 Thanks.

NOTE Confidence: 0.93992573

00:48:50.065 --> 00:48:51.344 And probably Steve or others,

NOTE Confidence: 0.93992573

00:48:51.344 --> 00:48:52.464 if I can identify what

NOTE Confidence: 0.93992573

00:48:52.464 --> 00:48:53.505 my questions are gonna be

NOTE Confidence: 0.93992573

00:48:53.505 --> 00:48:54.805 or kind of the focus.

NOTE Confidence: 0.93992573

00:48:54.864 --> 00:48:55.984 So I'm very interested in

NOTE Confidence: 0.93992573

00:48:55.984 --> 00:48:57.000 in kind of just,

NOTE Confidence: 0.9191408

00:48:57.560 --> 00:48:59.260 first of all, excellent result,

NOTE Confidence: 0.97333205

00:48:59.560 --> 00:48:59.800 great,

NOTE Confidence: 0.95339096

00:49:00.760 --> 00:49:02.140 technical and and surgical,

NOTE Confidence: 0.9468174

00:49:02.680 --> 00:49:04.440 decision making and collaboration. It's

NOTE Confidence: 0.9468174

00:49:04.440 --> 00:49:04.940 fantastic.

NOTE Confidence: 0.9538858

00:49:05.640 --> 00:49:07.020 But I'm I'm very curious

NOTE Confidence: 0.9538858

00:49:07.080 --> 00:49:08.380 at the initial presentation,

NOTE Confidence: 0.98619187

00:49:12.435 --> 00:49:14.694 whether coronary artery bypass graft,

NOTE Confidence: 0.8614793

00:49:15.714 --> 00:49:17.734 surgery was considered and

NOTE Confidence: 0.95529944

00:49:18.275 --> 00:49:19.714 whether, you know, there's some

NOTE Confidence: 0.95529944

00:49:19.714 --> 00:49:20.994 suggestion that maybe there was

NOTE Confidence: 0.95529944

00:49:20.994 --> 00:49:22.059 infarct expansion that could have

NOTE Confidence: 0.95529944

00:49:22.059 --> 00:49:24.059 been preventable, and, obviously, VSD

NOTE Confidence: 0.95529944

00:49:24.059 --> 00:49:24.960 occurred afterwards

NOTE Confidence: 0.9501929

00:49:25.420 --> 00:49:26.400 that could have been preventable,

NOTE Confidence: 0.9256345

00:49:27.020 --> 00:49:28.400 you know, leaving this patient,

NOTE Confidence: 0.99704474

00:49:28.700 --> 00:49:29.359 you know,

NOTE Confidence: 0.9851351

00:49:29.739 --> 00:49:30.880 under revascularized,

NOTE Confidence: 0.93912405

00:49:31.260 --> 00:49:32.460 I guess. And I'm just

NOTE Confidence: 0.93912405

00:49:32.460 --> 00:49:33.900 curious from Steve or anyone

NOTE Confidence: 0.93912405

00:49:33.900 --> 00:49:34.875 or Charles Charles or anyone

NOTE Confidence: 0.93912405

00:49:34.875 --> 00:49:36.315 who was there at the

NOTE Confidence: 0.93912405

00:49:36.315 --> 00:49:37.135 time whether

NOTE Confidence: 0.9271993

00:49:37.435 --> 00:49:38.875 that conversation happened and what

NOTE Confidence: 0.9271993

00:49:38.875 --> 00:49:40.555 your thoughts about that, was

NOTE Confidence: 0.9271993

00:49:40.555 --> 00:49:41.055 and

NOTE Confidence: 0.96507686

00:49:41.435 --> 00:49:42.955 and whether viability imaging or

NOTE Confidence: 0.96507686

00:49:42.955 --> 00:49:44.415 anything came into play.

NOTE Confidence: 0.92237496

00:49:48.420 --> 00:49:49.380 So I'll I'll dodge it

NOTE Confidence: 0.92237496

00:49:49.380 --> 00:49:50.180 a little bit and say

NOTE Confidence: 0.92237496

00:49:50.180 --> 00:49:51.800 that I wasn't there. Because

NOTE Confidence: 0.9217708

00:49:52.260 --> 00:49:53.940 so this patient presented the

NOTE Confidence: 0.9217708

00:49:53.940 --> 00:49:55.219 Saint Mary's in Waterbury and

NOTE Confidence: 0.9217708

00:49:55.219 --> 00:49:56.339 that was transferred to Yale,

NOTE Confidence: 0.9217708

00:49:56.339 --> 00:49:57.219 and I don't know who

NOTE Confidence: 0.9217708

00:49:57.219 --> 00:49:58.920 the operator was here

NOTE Confidence: 0.9935833

00:49:59.300 --> 00:50:00.260 who tried to open it

NOTE Confidence: 0.9935833

00:50:00.260 --> 00:50:01.460 or made the decision to

NOTE Confidence: 0.9935833

00:50:01.460 --> 00:50:02.280 leave it closed.

NOTE Confidence: 0.99391097

00:50:02.594 --> 00:50:03.415 But I think

NOTE Confidence: 0.9415379

00:50:04.195 --> 00:50:05.234 that reading through the chart,

NOTE Confidence: 0.9415379

00:50:05.234 --> 00:50:06.594 the consensus was that it

NOTE Confidence: 0.9415379

00:50:06.594 --> 00:50:08.295 was a late presentation infarct

NOTE Confidence: 0.9633294

00:50:08.594 --> 00:50:09.955 and whatever was done was

NOTE Confidence: 0.9633294

00:50:09.955 --> 00:50:10.915 done, and it was already

NOTE Confidence: 0.9633294

00:50:10.915 --> 00:50:12.035 infarcted. There was a large

NOTE Confidence: 0.9633294

00:50:12.035 --> 00:50:13.474 thrombus burden in the apex

NOTE Confidence: 0.9633294

00:50:13.474 --> 00:50:14.915 already. The apex was thinned

NOTE Confidence: 0.9633294

00:50:14.915 --> 00:50:16.580 out. And I I think

NOTE Confidence: 0.9633294

00:50:16.580 --> 00:50:17.780 they made the decision to

NOTE Confidence: 0.9633294

00:50:17.780 --> 00:50:18.820 not push the issue in

NOTE Confidence: 0.9633294

00:50:18.820 --> 00:50:19.719 terms of revascularization.

NOTE Confidence: 0.99079597

00:50:20.660 --> 00:50:22.120 And as you saw from,

NOTE Confidence: 0.95849377

00:50:23.060 --> 00:50:24.900 the stills that Ali presented,

NOTE Confidence: 0.95849377

00:50:24.900 --> 00:50:25.700 but if you look at

NOTE Confidence: 0.95849377

00:50:25.700 --> 00:50:27.380 the angiograms, you'd really never

NOTE Confidence: 0.95849377

00:50:27.380 --> 00:50:29.080 visualize the distal LED.

NOTE Confidence: 0.98747355

00:50:29.435 --> 00:50:30.395 And so I think that

NOTE Confidence: 0.98747355

00:50:30.395 --> 00:50:32.075 was not a big part

NOTE Confidence: 0.98747355

00:50:32.075 --> 00:50:32.815 of the consideration.

NOTE Confidence: 0.92592394

00:50:34.234 --> 00:50:35.935 So, you know, I think

NOTE Confidence: 0.92592394

00:50:35.994 --> 00:50:37.195 when she came to Saint

NOTE Confidence: 0.92592394

00:50:37.195 --> 00:50:37.695 Mary's,

NOTE Confidence: 0.99277323

00:50:38.635 --> 00:50:39.515 they were able to get

NOTE Confidence: 0.99277323

00:50:39.515 --> 00:50:40.475 a wire across it. They

NOTE Confidence: 0.99277323

00:50:40.475 --> 00:50:41.594 actually ballooned it, but there

NOTE Confidence: 0.99277323

00:50:41.594 --> 00:50:42.975 was no flow ever restored.

NOTE Confidence: 0.91194916

00:50:43.594 --> 00:50:43.835 And,

NOTE Confidence: 0.9867667

00:50:44.790 --> 00:50:46.070 I don't remember I don't

NOTE Confidence: 0.9867667

00:50:46.070 --> 00:50:47.770 think they did any intracoronary

NOTE Confidence: 0.9299876

00:50:48.070 --> 00:50:49.110 imaging, which would have been

NOTE Confidence: 0.9299876

00:50:49.110 --> 00:50:50.570 very interesting to see,

NOTE Confidence: 0.9934373

00:50:51.670 --> 00:50:53.030 but they decided to leave

NOTE Confidence: 0.9934373

00:50:53.030 --> 00:50:54.230 it be at that point.

NOTE Confidence: 0.9934373

00:50:54.230 --> 00:50:55.750 And then when she came

NOTE Confidence: 0.9934373

00:50:55.750 --> 00:50:56.410 to Yale,

NOTE Confidence: 0.9988469

00:50:56.950 --> 00:50:58.170 the findings were unchanged.

NOTE Confidence: 0.9731908

00:50:58.630 --> 00:50:59.510 So it's a good point,

NOTE Confidence: 0.9731908

00:50:59.510 --> 00:51:01.265 except I think the the

NOTE Confidence: 0.9731908

00:51:01.265 --> 00:51:02.385 the conclusion was that it

NOTE Confidence: 0.9731908

00:51:02.385 --> 00:51:03.685 was just a late presentation

NOTE Confidence: 0.9731908

00:51:03.745 --> 00:51:04.625 infarct, and it was all

NOTE Confidence: 0.9731908

00:51:04.625 --> 00:51:05.525 out of the barn.

NOTE Confidence: 0.83083403

00:51:10.945 --> 00:51:12.805 Two comments. One is the

NOTE Confidence: 0.9604709

00:51:13.140 --> 00:51:14.680 the inability to,

NOTE Confidence: 0.99950266

00:51:15.299 --> 00:51:15.799 expand

NOTE Confidence: 0.96629924

00:51:16.180 --> 00:51:16.680 GDMT

NOTE Confidence: 0.9801314

00:51:17.619 --> 00:51:19.299 in a way reflects the

NOTE Confidence: 0.9801314

00:51:19.299 --> 00:51:20.500 fact that there is, you

NOTE Confidence: 0.9801314

00:51:20.500 --> 00:51:21.319 know, obviously,

NOTE Confidence: 0.7694806

00:51:21.940 --> 00:51:22.500 in a,

NOTE Confidence: 0.93266845

00:51:23.539 --> 00:51:24.660 flow going it's like MR.

NOTE Confidence: 0.93266845

00:51:24.660 --> 00:51:25.380 It's like flow is going

NOTE Confidence: 0.93266845

00:51:25.380 --> 00:51:26.579 in the opposite direction. Right?

NOTE Confidence: 0.93266845

00:51:26.579 --> 00:51:28.275 So you're using the the

NOTE Confidence: 0.93266845

00:51:28.355 --> 00:51:29.795 the aneurysm is becoming a

NOTE Confidence: 0.93266845

00:51:29.795 --> 00:51:30.295 receptacle

NOTE Confidence: 0.9365642

00:51:30.914 --> 00:51:32.515 for, you know, no for

NOTE Confidence: 0.9365642

00:51:32.515 --> 00:51:33.575 non forward flow,

NOTE Confidence: 0.9915586

00:51:34.035 --> 00:51:35.555 and that's decreasing, you know,

NOTE Confidence: 0.9915586

00:51:35.555 --> 00:51:36.055 obviously,

NOTE Confidence: 0.9720103

00:51:37.154 --> 00:51:38.994 useful cardiac output and and

NOTE Confidence: 0.9720103

00:51:38.994 --> 00:51:39.494 actually

NOTE Confidence: 0.92055434

00:51:40.489 --> 00:51:41.849 and reducing the opportunity to

NOTE Confidence: 0.92055434

00:51:41.849 --> 00:51:43.069 start things. So I think,

NOTE Confidence: 0.9950266

00:51:44.410 --> 00:51:45.369 even though the patient didn't

NOTE Confidence: 0.9950266

00:51:45.369 --> 00:51:46.650 have refractory heart failure, I

NOTE Confidence: 0.9950266

00:51:46.650 --> 00:51:48.270 would argue that the inability

NOTE Confidence: 0.9950266

00:51:48.410 --> 00:51:49.789 to to move,

NOTE Confidence: 0.9521585

00:51:50.410 --> 00:51:51.630 GDMT forward,

NOTE Confidence: 0.9542053

00:51:52.905 --> 00:51:53.565 you know,

NOTE Confidence: 0.903285

00:51:54.105 --> 00:51:55.325 with an early indication

NOTE Confidence: 0.95371383

00:51:55.625 --> 00:51:56.825 that this patient would you

NOTE Confidence: 0.95371383

00:51:56.825 --> 00:51:58.205 know, that this was affecting

NOTE Confidence: 0.95371383

00:51:58.265 --> 00:52:00.265 their their, their output and

NOTE Confidence: 0.95371383

00:52:00.265 --> 00:52:01.864 and, obviously, increasing wall stress

NOTE Confidence: 0.95371383

00:52:01.864 --> 00:52:03.065 and all that from that.

NOTE Confidence: 0.95371383

00:52:03.065 --> 00:52:04.344 The the third option, which

NOTE Confidence: 0.95371383

00:52:04.344 --> 00:52:05.599 is maybe I'd love to

NOTE Confidence: 0.95371383

00:52:05.599 --> 00:52:06.839 hear Matt talk about this

NOTE Confidence: 0.95371383

00:52:06.839 --> 00:52:08.119 a bit around the different

NOTE Confidence: 0.95371383

00:52:08.200 --> 00:52:09.880 the evolution of this technique

NOTE Confidence: 0.95371383

00:52:09.880 --> 00:52:10.920 and how it's, you know,

NOTE Confidence: 0.95371383

00:52:10.920 --> 00:52:12.599 it's really a tremendously interesting

NOTE Confidence: 0.95371383

00:52:12.599 --> 00:52:14.359 story spanning fifty years, I

NOTE Confidence: 0.95371383

00:52:14.359 --> 00:52:15.180 think, plus

NOTE Confidence: 0.87010616

00:52:15.960 --> 00:52:17.480 and others. But but, you

NOTE Confidence: 0.87010616

00:52:17.480 --> 00:52:17.980 know,

NOTE Confidence: 0.9415429

00:52:18.465 --> 00:52:19.745 we're gonna have Dan Bercoff

NOTE Confidence: 0.9415429

00:52:19.745 --> 00:52:21.185 here in a few weeks,

NOTE Confidence: 0.9415429

00:52:21.185 --> 00:52:22.565 months. I can't remember, Catherine.

NOTE Confidence: 0.89014137

00:52:23.745 --> 00:52:25.505 And THT and, is down

NOTE Confidence: 0.89014137

00:52:25.505 --> 00:52:27.045 around the corner and CRF,

NOTE Confidence: 0.98643965

00:52:27.665 --> 00:52:29.125 the the the,

NOTE Confidence: 0.9444973

00:52:30.385 --> 00:52:31.825 that conference finished. But there's

NOTE Confidence: 0.9444973

00:52:31.825 --> 00:52:33.035 a lot of interest to,

NOTE Confidence: 0.9802191

00:52:34.320 --> 00:52:35.860 renewed interest in,

NOTE Confidence: 0.97589684

00:52:36.400 --> 00:52:37.440 both surgical as well as

NOTE Confidence: 0.97589684

00:52:37.440 --> 00:52:38.660 percutaneous devices,

NOTE Confidence: 0.99966586

00:52:40.160 --> 00:52:41.200 that can be placed to

NOTE Confidence: 0.99966586

00:52:41.200 --> 00:52:42.420 reduce expansion

NOTE Confidence: 0.98043793

00:52:42.800 --> 00:52:44.580 of these of these aneurysms

NOTE Confidence: 0.88798714

00:52:44.880 --> 00:52:46.080 in patients with true you

NOTE Confidence: 0.88798714

00:52:46.080 --> 00:52:47.280 know, with severe aneurysms with

NOTE Confidence: 0.88798714

00:52:47.280 --> 00:52:48.400 this, but also just people

NOTE Confidence: 0.88798714

00:52:48.400 --> 00:52:50.474 with very large LVs post

NOTE Confidence: 0.88798714

00:52:50.474 --> 00:52:50.974 infarct.

NOTE Confidence: 0.9239797

00:52:52.635 --> 00:52:53.594 So it's just something that

NOTE Confidence: 0.9239797

00:52:53.755 --> 00:52:54.635 to keep on the radar.

NOTE Confidence: 0.9239797

00:52:54.635 --> 00:52:55.515 And, Dan, I'm sure we'll

NOTE Confidence: 0.9239797

00:52:55.515 --> 00:52:56.315 talk about that when he

NOTE Confidence: 0.9239797

00:52:56.315 --> 00:52:57.594 comes. If you wanna talk

NOTE Confidence: 0.9239797

00:52:57.594 --> 00:52:58.315 about the surgical

NOTE Confidence: 0.9817139

00:52:59.515 --> 00:53:00.795 Yeah. I'm I'm far from

NOTE Confidence: 0.9817139

00:53:00.795 --> 00:53:01.835 an expert in this, but

NOTE Confidence: 0.9817139

00:53:01.835 --> 00:53:03.275 I can remember watching on,

NOTE Confidence: 0.9817139

00:53:03.670 --> 00:53:04.170 PBS,

NOTE Confidence: 0.98337907

00:53:04.710 --> 00:53:07.030 doctor Batista in Brazil. They

NOTE Confidence: 0.98337907

00:53:07.030 --> 00:53:08.310 they did a whole hour

NOTE Confidence: 0.98337907

00:53:08.310 --> 00:53:09.610 long special with

NOTE Confidence: 0.9847843

00:53:10.070 --> 00:53:10.630 how his,

NOTE Confidence: 0.9857504

00:53:11.190 --> 00:53:13.190 aneurysm reduction surgery was,

NOTE Confidence: 0.9992056

00:53:13.750 --> 00:53:15.510 working miracles for these patients

NOTE Confidence: 0.9992056

00:53:15.510 --> 00:53:16.250 in Brazil.

NOTE Confidence: 0.97963446

00:53:16.805 --> 00:53:18.405 He, he worked in an

NOTE Confidence: 0.97963446

00:53:18.405 --> 00:53:19.845 ICU where there weren't a

NOTE Confidence: 0.97963446

00:53:19.845 --> 00:53:20.325 lot of,

NOTE Confidence: 0.983198

00:53:21.445 --> 00:53:22.965 good ways to monitor patients.

NOTE Confidence: 0.983198

00:53:22.965 --> 00:53:23.845 And I remember he looked

NOTE Confidence: 0.983198

00:53:23.845 --> 00:53:24.725 at the camera and held

NOTE Confidence: 0.983198

00:53:24.725 --> 00:53:25.225 up

NOTE Confidence: 0.9440924

00:53:25.685 --> 00:53:26.485 a held up a,

NOTE Confidence: 0.940018

00:53:27.845 --> 00:53:30.165 urinary catheter Foley receptacle and

NOTE Confidence: 0.940018

00:53:30.165 --> 00:53:31.465 said, this is my monitor.

NOTE Confidence: 0.87705123

00:53:32.890 --> 00:53:33.390 So,

NOTE Confidence: 0.99881303

00:53:33.930 --> 00:53:34.430 anyway,

NOTE Confidence: 0.91676503

00:53:35.210 --> 00:53:36.730 it became a very hot,

NOTE Confidence: 0.91676503

00:53:36.730 --> 00:53:37.230 popular

NOTE Confidence: 0.9995491

00:53:38.170 --> 00:53:38.670 operation

NOTE Confidence: 0.96034306

00:53:39.130 --> 00:53:40.090 when I was a general

NOTE Confidence: 0.96034306

00:53:40.090 --> 00:53:41.450 surgery resident. Even as a

NOTE Confidence: 0.96034306

00:53:41.450 --> 00:53:42.890 fellow, I can remember at

NOTE Confidence: 0.96034306

00:53:42.890 --> 00:53:44.250 Duke. Eric, you were there

NOTE Confidence: 0.96034306

00:53:44.250 --> 00:53:45.310 too. The the

NOTE Confidence: 0.9846023

00:53:45.610 --> 00:53:46.489 there would be two or

NOTE Confidence: 0.9846023

00:53:46.489 --> 00:53:46.989 three

NOTE Confidence: 0.9750147

00:53:48.974 --> 00:53:50.815 door operations on the schedule

NOTE Confidence: 0.9750147

00:53:50.815 --> 00:53:51.875 every month, and,

NOTE Confidence: 0.9975093

00:53:52.414 --> 00:53:53.535 you know, we'd probably do

NOTE Confidence: 0.9975093

00:53:53.535 --> 00:53:54.494 one or two a year

NOTE Confidence: 0.9975093

00:53:54.494 --> 00:53:55.234 here now.

NOTE Confidence: 0.9680746

00:53:56.094 --> 00:53:57.535 My recollection is that there

NOTE Confidence: 0.9680746

00:53:57.535 --> 00:53:58.015 was a,

NOTE Confidence: 0.9922141

00:53:58.575 --> 00:53:59.934 a big trial that did

NOTE Confidence: 0.9922141

00:53:59.934 --> 00:54:01.454 not show any benefit for

NOTE Confidence: 0.9922141

00:54:01.454 --> 00:54:02.895 the procedure, and it just

NOTE Confidence: 0.9922141

00:54:02.895 --> 00:54:03.395 kinda

NOTE Confidence: 0.99481136

00:54:03.750 --> 00:54:05.110 went away at that point.

NOTE Confidence: 0.99481136

00:54:05.110 --> 00:54:05.430 So,

NOTE Confidence: 0.89963466

00:54:07.350 --> 00:54:09.130 I think that the indications

NOTE Confidence: 0.9859073

00:54:09.830 --> 00:54:10.810 remain murky.

NOTE Confidence: 0.9724534

00:54:12.150 --> 00:54:13.350 This patient, it seemed like

NOTE Confidence: 0.9724534

00:54:13.350 --> 00:54:15.590 you guys decided to tackle

NOTE Confidence: 0.9724534

00:54:15.590 --> 00:54:17.430 this because of increasing clot

NOTE Confidence: 0.9724534

00:54:17.430 --> 00:54:18.330 burden and

NOTE Confidence: 0.98752564

00:54:18.725 --> 00:54:19.925 risk of stroke. I think

NOTE Confidence: 0.98752564

00:54:19.925 --> 00:54:21.765 the indication for refractory heart

NOTE Confidence: 0.98752564

00:54:21.765 --> 00:54:22.665 failure is,

NOTE Confidence: 0.97284013

00:54:23.685 --> 00:54:25.305 you know, not as reliable,

NOTE Confidence: 0.97284013

00:54:25.445 --> 00:54:26.645 whether you're actually gonna make

NOTE Confidence: 0.97284013

00:54:26.645 --> 00:54:27.925 people better or not, whether

NOTE Confidence: 0.97284013

00:54:27.925 --> 00:54:28.665 it's worth

NOTE Confidence: 0.93876815

00:54:29.765 --> 00:54:31.285 the risk we impose by

NOTE Confidence: 0.93876815

00:54:31.285 --> 00:54:32.825 doing this complex operation,

NOTE Confidence: 0.9489297

00:54:34.230 --> 00:54:35.430 is unknown, and that's why

NOTE Confidence: 0.9489297

00:54:35.430 --> 00:54:36.310 so few of them are

NOTE Confidence: 0.9489297

00:54:36.310 --> 00:54:36.810 down.

NOTE Confidence: 0.93250394

00:54:37.670 --> 00:54:38.650 So any other

NOTE Confidence: 0.9985967

00:54:38.950 --> 00:54:40.330 comments on that issue?

NOTE Confidence: 0.4465002

00:54:41.590 --> 00:54:42.390 Oh, I think it

NOTE Confidence: 0.8203204

00:54:44.310 --> 00:54:45.830 send it around. Start this

NOTE Confidence: 0.8203204

00:54:45.830 --> 00:54:46.810 way and go around.

NOTE Confidence: 0.8817457

00:54:47.344 --> 00:54:49.204 Yeah. I think for us

NOTE Confidence: 0.8817457

00:54:49.424 --> 00:54:50.565 in our multidisciplinary

NOTE Confidence: 0.95347095

00:54:51.105 --> 00:54:52.545 conference, she was presented a

NOTE Confidence: 0.95347095

00:54:52.545 --> 00:54:53.505 number of times and the

NOTE Confidence: 0.95347095

00:54:53.505 --> 00:54:54.724 whole question was,

NOTE Confidence: 0.9628615

00:54:55.025 --> 00:54:56.385 what are the indications? What

NOTE Confidence: 0.9628615

00:54:56.385 --> 00:54:57.664 are the real indications? She

NOTE Confidence: 0.9628615

00:54:57.664 --> 00:54:59.344 hadn't had a thromboembolic event,

NOTE Confidence: 0.9628615

00:54:59.344 --> 00:55:00.864 it's impressive as the echoes

NOTE Confidence: 0.9628615

00:55:00.864 --> 00:55:02.600 are. She hadn't had any

NOTE Confidence: 0.9628615

00:55:02.600 --> 00:55:04.140 arrhythmias, she had an ICD,

NOTE Confidence: 0.9628615

00:55:04.200 --> 00:55:05.880 which we could interrogate and

NOTE Confidence: 0.9628615

00:55:05.880 --> 00:55:06.940 see she had no,

NOTE Confidence: 0.9393161

00:55:07.640 --> 00:55:08.140 arrhythmias.

NOTE Confidence: 0.96691275

00:55:08.440 --> 00:55:08.760 And,

NOTE Confidence: 0.98603934

00:55:09.560 --> 00:55:10.920 you know, we actually were

NOTE Confidence: 0.98603934

00:55:10.920 --> 00:55:11.960 able to advance her heart

NOTE Confidence: 0.98603934

00:55:11.960 --> 00:55:13.560 failure therapy a little bit

NOTE Confidence: 0.98603934

00:55:13.560 --> 00:55:14.380 over time.

NOTE Confidence: 0.9843099

00:55:14.680 --> 00:55:16.075 So we had a pretty

NOTE Confidence: 0.9843099

00:55:16.075 --> 00:55:17.355 vigorous debate about whether it

NOTE Confidence: 0.9843099

00:55:17.355 --> 00:55:18.955 was worthwhile to proceed with

NOTE Confidence: 0.9843099

00:55:18.955 --> 00:55:19.935 it, quite honestly.

NOTE Confidence: 0.95920044

00:55:20.475 --> 00:55:22.635 And, Roland felt strongly that,

NOTE Confidence: 0.95920044

00:55:22.635 --> 00:55:24.315 you know, the anatomy was

NOTE Confidence: 0.95920044

00:55:24.315 --> 00:55:25.614 favorable and he could

NOTE Confidence: 0.9403605

00:55:26.315 --> 00:55:27.594 improve things. And so I

NOTE Confidence: 0.9403605

00:55:27.594 --> 00:55:29.215 think he was the big

NOTE Confidence: 0.9403605

00:55:29.469 --> 00:55:30.830 force kind of moving forward

NOTE Confidence: 0.9403605

00:55:30.830 --> 00:55:32.770 with surgery. And in retrospect,

NOTE Confidence: 0.9403605

00:55:32.830 --> 00:55:33.630 it was the right choice.

NOTE Confidence: 0.9403605

00:55:33.630 --> 00:55:34.790 She's done very well. So

NOTE Confidence: 0.9403605

00:55:34.910 --> 00:55:36.190 but it was a hot

NOTE Confidence: 0.9403605

00:55:36.190 --> 00:55:37.390 topic of debate, to say

NOTE Confidence: 0.9403605

00:55:37.390 --> 00:55:37.969 the least.

NOTE Confidence: 0.82418466

00:55:42.590 --> 00:55:43.090 Jeff?

NOTE Confidence: 0.92433524

00:55:45.494 --> 00:55:45.994 Terrific

NOTE Confidence: 0.9915178

00:55:46.295 --> 00:55:46.795 presentation.

NOTE Confidence: 0.9843377

00:55:48.934 --> 00:55:50.155 So I have a couple

NOTE Confidence: 0.9843377

00:55:50.295 --> 00:55:52.055 comments. One is a little

NOTE Confidence: 0.9843377

00:55:52.055 --> 00:55:53.895 bit old school, which maybe

NOTE Confidence: 0.9843377

00:55:53.895 --> 00:55:54.535 is a lot of my

NOTE Confidence: 0.9843377

00:55:54.535 --> 00:55:56.315 comments these days, and and,

NOTE Confidence: 0.999741

00:55:57.015 --> 00:55:57.675 the other

NOTE Confidence: 0.9545407

00:55:58.110 --> 00:55:59.330 maybe not so.

NOTE Confidence: 0.9962635

00:55:59.710 --> 00:56:00.930 The the question

NOTE Confidence: 0.9607934

00:56:01.470 --> 00:56:02.670 one is question. One is

NOTE Confidence: 0.9607934

00:56:02.670 --> 00:56:04.210 not. The question is

NOTE Confidence: 0.8861607

00:56:04.830 --> 00:56:06.370 the one term that I

NOTE Confidence: 0.9818932

00:56:06.830 --> 00:56:08.670 never heard you mention in

NOTE Confidence: 0.9818932

00:56:08.670 --> 00:56:09.330 the entire

NOTE Confidence: 0.9988783

00:56:10.844 --> 00:56:11.344 presentation

NOTE Confidence: 0.9893801

00:56:11.805 --> 00:56:12.545 was dyskinesis.

NOTE Confidence: 0.9270476

00:56:13.485 --> 00:56:14.685 And so the reason I

NOTE Confidence: 0.9270476

00:56:14.685 --> 00:56:16.225 said that's an old school

NOTE Confidence: 0.89759743

00:56:17.005 --> 00:56:17.905 concept, and

NOTE Confidence: 0.9986776

00:56:18.285 --> 00:56:19.585 those of you who have

NOTE Confidence: 0.9986776

00:56:19.725 --> 00:56:20.705 been around for

NOTE Confidence: 0.9587109

00:56:21.005 --> 00:56:22.685 a little while know that

NOTE Confidence: 0.9587109

00:56:22.685 --> 00:56:23.805 we used to make a

NOTE Confidence: 0.9587109

00:56:23.805 --> 00:56:26.080 big distinction between a segment

NOTE Confidence: 0.9587109

00:56:26.080 --> 00:56:27.619 that was frankly disconnected

NOTE Confidence: 0.9629405

00:56:28.400 --> 00:56:29.760 and one that was just

NOTE Confidence: 0.9629405

00:56:29.760 --> 00:56:31.619 a large akinetic segment.

NOTE Confidence: 0.9978901

00:56:32.320 --> 00:56:33.780 I I do believe

NOTE Confidence: 0.9695733

00:56:34.080 --> 00:56:35.840 there's less of a deal

NOTE Confidence: 0.9695733

00:56:35.840 --> 00:56:37.140 made out of that distinction

NOTE Confidence: 0.9695733

00:56:37.280 --> 00:56:38.880 anymore, but but we used

NOTE Confidence: 0.9695733

00:56:38.880 --> 00:56:40.765 to say that disconnect segments

NOTE Confidence: 0.94691515

00:56:41.385 --> 00:56:42.985 were less likely to develop

NOTE Confidence: 0.94691515

00:56:42.985 --> 00:56:43.805 big thrombi

NOTE Confidence: 0.9355255

00:56:44.185 --> 00:56:45.885 because they are still moving

NOTE Confidence: 0.9355255

00:56:45.945 --> 00:56:46.905 even if they're moving in

NOTE Confidence: 0.9355255

00:56:46.905 --> 00:56:47.805 the wrong direction.

NOTE Confidence: 0.95765734

00:56:48.265 --> 00:56:49.864 Whereas a large a kinetic

NOTE Confidence: 0.95765734

00:56:49.864 --> 00:56:51.465 segment is just let's just

NOTE Confidence: 0.95765734

00:56:51.465 --> 00:56:52.839 not moving when it's there.

NOTE Confidence: 0.95765734

00:56:52.839 --> 00:56:54.119 And I was looking carefully.

NOTE Confidence: 0.95765734

00:56:54.119 --> 00:56:55.400 Maybe Lisa can comment. I

NOTE Confidence: 0.95765734

00:56:55.400 --> 00:56:56.599 was looking carefully at all

NOTE Confidence: 0.95765734

00:56:56.599 --> 00:56:58.359 the echoes going through, and

NOTE Confidence: 0.95765734

00:56:58.359 --> 00:57:00.280 it wasn't until the very

NOTE Confidence: 0.95765734

00:57:00.280 --> 00:57:02.440 last two thousand five echo

NOTE Confidence: 0.95765734

00:57:02.440 --> 00:57:03.960 that I that was sort

NOTE Confidence: 0.95765734

00:57:03.960 --> 00:57:04.780 of a presurgical

NOTE Confidence: 0.9966129

00:57:05.825 --> 00:57:07.505 echo that that I thought

NOTE Confidence: 0.9966129

00:57:07.505 --> 00:57:08.244 I saw

NOTE Confidence: 0.9020022

00:57:09.025 --> 00:57:10.005 frank dyskinesis.

NOTE Confidence: 0.993724

00:57:10.464 --> 00:57:11.825 So is that something that

NOTE Confidence: 0.993724

00:57:11.825 --> 00:57:13.424 we pay any attention to

NOTE Confidence: 0.993724

00:57:13.424 --> 00:57:15.125 anymore? Is it something that

NOTE Confidence: 0.993724

00:57:15.265 --> 00:57:16.785 we should still be using

NOTE Confidence: 0.993724

00:57:16.785 --> 00:57:17.765 as a distinction

NOTE Confidence: 0.9134166

00:57:19.520 --> 00:57:21.060 for moving forward?

NOTE Confidence: 0.94712

00:57:25.359 --> 00:57:25.859 So,

NOTE Confidence: 0.95870495

00:57:27.520 --> 00:57:29.440 when we call something that's

NOTE Confidence: 0.95870495

00:57:29.440 --> 00:57:31.140 aneurysmal, that it already

NOTE Confidence: 0.9615784

00:57:31.645 --> 00:57:33.165 includes the connotation that it

NOTE Confidence: 0.9615784

00:57:33.165 --> 00:57:33.905 is disconnected.

NOTE Confidence: 0.96714765

00:57:34.205 --> 00:57:35.265 It can be akinetic,

NOTE Confidence: 0.98706746

00:57:35.805 --> 00:57:37.265 but, it's usually,

NOTE Confidence: 0.90516186

00:57:38.285 --> 00:57:38.785 disconnected.

NOTE Confidence: 0.9796243

00:57:39.645 --> 00:57:41.185 But we do use dyskinesis,

NOTE Confidence: 0.9781289

00:57:43.325 --> 00:57:44.160 on its own,

NOTE Confidence: 0.9850092

00:57:44.880 --> 00:57:45.920 even if there isn't an

NOTE Confidence: 0.9850092

00:57:45.920 --> 00:57:47.440 aneurysm. So we we still

NOTE Confidence: 0.9850092

00:57:47.440 --> 00:57:48.260 use those,

NOTE Confidence: 0.9984908

00:57:49.680 --> 00:57:50.980 terminology of dyskinesis.

NOTE Confidence: 0.9388713

00:57:52.559 --> 00:57:54.020 Not old school. Yeah.

NOTE Confidence: 0.7602069

00:57:56.640 --> 00:57:58.000 The the non old school.

NOTE Confidence: 0.7602069

00:57:58.000 --> 00:57:58.500 Comment.

NOTE Confidence: 0.7966743

00:58:00.775 --> 00:58:01.835 A little bit about

NOTE Confidence: 0.6329172

00:58:02.135 --> 00:58:03.895 the alpha biology of the

NOTE Confidence: 0.6329172

00:58:03.895 --> 00:58:04.955 spark expansion.

NOTE Confidence: 0.9561269

00:58:05.575 --> 00:58:06.935 And this is not a

NOTE Confidence: 0.9561269

00:58:06.935 --> 00:58:08.615 question, but just kind of

NOTE Confidence: 0.9561269

00:58:08.615 --> 00:58:10.135 a comment towards the future

NOTE Confidence: 0.9561269

00:58:10.135 --> 00:58:11.515 a little bit is that,

NOTE Confidence: 0.9561269

00:58:11.655 --> 00:58:12.455 you know, a lot of

NOTE Confidence: 0.9561269

00:58:12.455 --> 00:58:12.955 people,

NOTE Confidence: 0.9724685

00:58:13.880 --> 00:58:16.040 are really interested in what

NOTE Confidence: 0.9724685

00:58:16.040 --> 00:58:18.300 actually causes this adverse remodeling.

NOTE Confidence: 0.9724685

00:58:18.440 --> 00:58:19.640 And is there any are

NOTE Confidence: 0.9724685

00:58:19.640 --> 00:58:20.940 there any early

NOTE Confidence: 0.9988752

00:58:21.800 --> 00:58:22.300 molecular

NOTE Confidence: 0.8045901

00:58:22.680 --> 00:58:23.980 intervention interventions

NOTE Confidence: 0.999562

00:58:24.280 --> 00:58:25.880 that could occur in order

NOTE Confidence: 0.999562

00:58:25.880 --> 00:58:26.380 to

NOTE Confidence: 0.9916285

00:58:26.680 --> 00:58:28.620 forestall that or prevent it?

NOTE Confidence: 0.9967293

00:58:29.255 --> 00:58:30.295 And, you know, I I

NOTE Confidence: 0.9967293

00:58:30.295 --> 00:58:30.795 can't

NOTE Confidence: 0.98901963

00:58:31.175 --> 00:58:32.935 make a comment without mentioning

NOTE Confidence: 0.98901963

00:58:32.935 --> 00:58:34.375 the word inflammation. So there's

NOTE Confidence: 0.98901963

00:58:34.375 --> 00:58:35.275 a lot of,

NOTE Confidence: 0.9990192

00:58:35.975 --> 00:58:38.235 interesting inflammatory cells that

NOTE Confidence: 0.94759834

00:58:38.695 --> 00:58:40.295 take residence in the area

NOTE Confidence: 0.94759834

00:58:40.295 --> 00:58:41.415 of the infarct and the

NOTE Confidence: 0.94759834

00:58:41.415 --> 00:58:42.855 peri infarct area that are

NOTE Confidence: 0.94759834

00:58:42.855 --> 00:58:44.395 producing soluble factors

NOTE Confidence: 0.9912097

00:58:44.950 --> 00:58:47.110 that probably promote this adverse

NOTE Confidence: 0.9912097

00:58:47.110 --> 00:58:48.650 remodeling and how to

NOTE Confidence: 0.9896817

00:58:49.030 --> 00:58:50.550 affect that and prevent that.

NOTE Confidence: 0.9896817

00:58:50.550 --> 00:58:51.670 So that that's just a

NOTE Confidence: 0.9896817

00:58:51.670 --> 00:58:53.270 comment sort of looking towards

NOTE Confidence: 0.9896817

00:58:53.270 --> 00:58:53.930 the future,

NOTE Confidence: 0.99919355

00:58:54.870 --> 00:58:56.310 because I think we still

NOTE Confidence: 0.99919355

00:58:56.310 --> 00:58:57.590 don't know as much about

NOTE Confidence: 0.99919355

00:58:57.590 --> 00:58:59.030 that as we as we

NOTE Confidence: 0.99919355

00:58:59.030 --> 00:58:59.770 would like.

NOTE Confidence: 0.5655311

00:59:08.924 --> 00:59:10.484 I mean, Emmanuel and

NOTE Confidence: 0.9782559

00:59:10.924 --> 00:59:12.365 Please. I just wanna make

NOTE Confidence: 0.9782559

00:59:12.365 --> 00:59:13.805 one comment. I'm Charles Phillip.

NOTE Confidence: 0.9782559

00:59:13.805 --> 00:59:15.150 I was the her primary

NOTE Confidence: 0.9782559

00:59:15.150 --> 00:59:16.270 provider since two thousand and

NOTE Confidence: 0.9782559

00:59:16.270 --> 00:59:17.150 twenty three, and I wanna

NOTE Confidence: 0.9782559

00:59:17.150 --> 00:59:19.150 commend Ali for doing a

NOTE Confidence: 0.9782559

00:59:19.150 --> 00:59:20.910 great job summarizing her case

NOTE Confidence: 0.9782559

00:59:20.910 --> 00:59:22.210 over the period of time.

NOTE Confidence: 0.979554

00:59:22.910 --> 00:59:24.349 You know, despite having two

NOTE Confidence: 0.979554

00:59:24.349 --> 00:59:26.430 mechanical complications from an MI,

NOTE Confidence: 0.979554

00:59:26.430 --> 00:59:27.630 both the BSD and the

NOTE Confidence: 0.979554

00:59:27.630 --> 00:59:28.130 aneurysm,

NOTE Confidence: 0.81652176

00:59:28.589 --> 00:59:28.815 she

NOTE Confidence: 0.9942762

00:59:31.694 --> 00:59:33.795 heart failure symptoms, angina symptoms,

NOTE Confidence: 0.98430747

00:59:34.494 --> 00:59:35.474 and even arrhythmia.

NOTE Confidence: 0.8934481

00:59:36.974 --> 00:59:38.515 So it's surprising that

NOTE Confidence: 0.9427491

00:59:38.895 --> 00:59:40.595 despite these favorable,

NOTE Confidence: 0.8289614

00:59:43.560 --> 00:59:44.060 favorable,

NOTE Confidence: 0.8026187

00:59:45.080 --> 00:59:45.580 symptoms,

NOTE Confidence: 0.88750255

00:59:46.280 --> 00:59:48.220 her aneurysm was getting bigger

NOTE Confidence: 0.88750255

00:59:48.440 --> 00:59:50.540 on this the imaging modalities

NOTE Confidence: 0.88750255

00:59:50.760 --> 00:59:51.560 as well as the cloud

NOTE Confidence: 0.88750255

00:59:51.560 --> 00:59:53.240 burn despite being on low

NOTE Confidence: 0.88750255

00:59:53.240 --> 00:59:54.040 dose g d m p

NOTE Confidence: 0.88750255

00:59:54.040 --> 00:59:55.180 therapy and anticoagulation.

NOTE Confidence: 0.98809195

00:59:55.805 --> 00:59:56.625 So, I'm

NOTE Confidence: 0.99056786

00:59:57.005 --> 00:59:57.965 fortunate to work,

NOTE Confidence: 0.94563997

00:59:58.445 --> 00:59:59.485 at the VA where we

NOTE Confidence: 0.94563997

00:59:59.485 --> 01:00:01.245 had multiple discussions as doctor

NOTE Confidence: 0.94563997

01:00:01.245 --> 01:00:03.085 Pfau alluded to, discussing her

NOTE Confidence: 0.94563997

01:00:03.085 --> 01:00:04.525 case at length, reviewing her

NOTE Confidence: 0.94563997

01:00:04.525 --> 01:00:06.445 cases, reviewing her imaging, and

NOTE Confidence: 0.94563997

01:00:06.445 --> 01:00:06.945 rereviewing

NOTE Confidence: 0.9753945

01:00:07.245 --> 01:00:07.985 new imaging,

NOTE Confidence: 0.96615446

01:00:08.470 --> 01:00:09.850 discussing with in a multidisciplinary

NOTE Confidence: 0.9407288

01:00:10.150 --> 01:00:11.110 approach with,

NOTE Confidence: 0.9889871

01:00:11.830 --> 01:00:12.330 our,

NOTE Confidence: 0.8783171

01:00:12.870 --> 01:00:14.630 imaging staff, our surgeons, our

NOTE Confidence: 0.8783171

01:00:14.630 --> 01:00:16.090 intangential, and general cardiologists.

NOTE Confidence: 0.9594697

01:00:16.870 --> 01:00:17.270 And,

NOTE Confidence: 0.9341754

01:00:18.070 --> 01:00:18.950 we were able to collect

NOTE Confidence: 0.9341754

01:00:18.950 --> 01:00:19.830 it. We make a decision

NOTE Confidence: 0.9341754

01:00:19.830 --> 01:00:21.285 that hopefully will lead to

NOTE Confidence: 0.9341754

01:00:21.285 --> 01:00:22.405 a good outcome in her

NOTE Confidence: 0.9341754

01:00:22.405 --> 01:00:22.885 future.

NOTE Confidence: 0.94799095

01:00:23.605 --> 01:00:24.645 I know the veteran is

NOTE Confidence: 0.94799095

01:00:24.645 --> 01:00:25.845 very appreciative of the time

NOTE Confidence: 0.94799095

01:00:25.845 --> 01:00:27.204 spent in her care, discussion

NOTE Confidence: 0.94799095

01:00:27.204 --> 01:00:27.945 of her care,

NOTE Confidence: 0.9739079

01:00:28.885 --> 01:00:29.845 and she keeps,

NOTE Confidence: 0.96873516

01:00:32.085 --> 01:00:33.359 thanking all all the support

NOTE Confidence: 0.96873516

01:00:33.359 --> 01:00:34.319 that was given both at

NOTE Confidence: 0.96873516

01:00:34.319 --> 01:00:35.200 the VA and Yale in

NOTE Confidence: 0.96873516

01:00:35.200 --> 01:00:36.640 terms of her overall outcome

NOTE Confidence: 0.96873516

01:00:36.640 --> 01:00:37.299 and overall

NOTE Confidence: 0.9916005

01:00:40.720 --> 01:00:41.619 care. Yeah.

NOTE Confidence: 0.9252882

01:00:42.079 --> 01:00:43.359 So another question, actually. I

NOTE Confidence: 0.9252882

01:00:43.359 --> 01:00:44.240 just wanted to make a

NOTE Confidence: 0.9252882

01:00:44.240 --> 01:00:45.039 comment about,

NOTE Confidence: 0.99257255

01:00:45.519 --> 01:00:46.819 the LV remodeling,

NOTE Confidence: 0.9976701

01:00:47.200 --> 01:00:48.180 in this patient.

NOTE Confidence: 0.99617064

01:00:49.125 --> 01:00:50.425 I believe one of the

NOTE Confidence: 0.56177425

01:00:51.045 --> 01:00:51.545 reason

NOTE Confidence: 0.93162125

01:00:52.005 --> 01:00:53.445 from talking to Ali, one

NOTE Confidence: 0.93162125

01:00:53.445 --> 01:00:54.825 of the reason

NOTE Confidence: 0.9883442

01:00:55.365 --> 01:00:55.865 why,

NOTE Confidence: 0.9536497

01:00:56.645 --> 01:00:57.685 they also decide to do

NOTE Confidence: 0.9536497

01:00:57.685 --> 01:00:59.305 surgery in this case was

NOTE Confidence: 0.9536497

01:00:59.445 --> 01:01:00.265 because the,

NOTE Confidence: 0.99417025

01:01:00.885 --> 01:01:02.745 aneurysm was rapidly progressing,

NOTE Confidence: 0.9479748

01:01:03.205 --> 01:01:05.160 which is which is not

NOTE Confidence: 0.9479748

01:01:05.240 --> 01:01:07.000 maybe probably the rate of

NOTE Confidence: 0.9479748

01:01:07.000 --> 01:01:07.500 of,

NOTE Confidence: 0.9371944

01:01:08.599 --> 01:01:10.760 of remodeling was probably exceed

NOTE Confidence: 0.9371944

01:01:10.760 --> 01:01:12.040 what we expect for most

NOTE Confidence: 0.9371944

01:01:12.040 --> 01:01:12.540 aneurysm.

NOTE Confidence: 0.9222727

01:01:12.920 --> 01:01:14.119 We tend to see rapid

NOTE Confidence: 0.9222727

01:01:14.119 --> 01:01:15.660 progression for pseudo aneurysm,

NOTE Confidence: 0.9877539

01:01:16.215 --> 01:01:18.215 maybe less rapid for aneurysm.

NOTE Confidence: 0.9877539

01:01:18.215 --> 01:01:19.415 But this case, it was

NOTE Confidence: 0.9877539

01:01:19.415 --> 01:01:19.915 rapidly,

NOTE Confidence: 0.99321157

01:01:20.775 --> 01:01:21.275 progressing.

NOTE Confidence: 0.70685464

01:01:21.735 --> 01:01:22.135 I guess,

NOTE Confidence: 0.9809641

01:01:23.095 --> 01:01:24.935 the theory I have in

NOTE Confidence: 0.9809641

01:01:24.935 --> 01:01:26.695 this case was, the patient

NOTE Confidence: 0.9809641

01:01:26.695 --> 01:01:27.755 also had a VSD.

NOTE Confidence: 0.9508831

01:01:28.215 --> 01:01:29.195 So the VSD,

NOTE Confidence: 0.9917105

01:01:29.575 --> 01:01:30.475 in this case,

NOTE Confidence: 0.97458714

01:01:31.310 --> 01:01:32.610 VSD tends to cause,

NOTE Confidence: 0.9982049

01:01:33.390 --> 01:01:34.830 volume overload on the left

NOTE Confidence: 0.9982049

01:01:34.830 --> 01:01:35.330 side.

NOTE Confidence: 0.9657885

01:01:35.790 --> 01:01:37.630 So I believe the volume

NOTE Confidence: 0.9657885

01:01:37.630 --> 01:01:39.230 overload on the left side,

NOTE Confidence: 0.9657885

01:01:39.230 --> 01:01:40.750 it's probably what is also

NOTE Confidence: 0.9657885

01:01:40.750 --> 01:01:43.070 driving the rapid regression of,

NOTE Confidence: 0.9888699

01:01:43.790 --> 01:01:45.310 the aneurysm size in this

NOTE Confidence: 0.9888699

01:01:45.310 --> 01:01:45.810 patient.

NOTE Confidence: 0.5791562

01:01:50.485 --> 01:01:51.305 Another thing.

NOTE Confidence: 0.90824234

01:01:54.805 --> 01:01:55.305 Yeah.

NOTE Confidence: 0.9580497

01:01:56.885 --> 01:01:58.005 Yeah. So maybe just a

NOTE Confidence: 0.9580497

01:01:58.005 --> 01:01:59.525 couple comments, and then, again,

NOTE Confidence: 0.9580497

01:01:59.525 --> 01:02:01.065 thank you. I mean, it's

NOTE Confidence: 0.9580497

01:02:01.140 --> 01:02:02.740 just for for the trainees.

NOTE Confidence: 0.9580497

01:02:02.740 --> 01:02:03.700 I mean, this is a

NOTE Confidence: 0.9580497

01:02:03.700 --> 01:02:04.500 great case because you don't

NOTE Confidence: 0.9580497

01:02:04.500 --> 01:02:05.619 see this very often. There's

NOTE Confidence: 0.9580497

01:02:05.619 --> 01:02:06.420 many reasons why you don't

NOTE Confidence: 0.9580497

01:02:06.420 --> 01:02:07.220 see this very often, but

NOTE Confidence: 0.9580497

01:02:07.220 --> 01:02:08.740 I can tell you that,

NOTE Confidence: 0.99426204

01:02:09.619 --> 01:02:11.000 when, you know,

NOTE Confidence: 0.9844276

01:02:11.779 --> 01:02:12.900 when when I was training,

NOTE Confidence: 0.9844276

01:02:12.900 --> 01:02:14.019 we saw much more of

NOTE Confidence: 0.9844276

01:02:14.019 --> 01:02:15.480 this, and this was actually,

NOTE Confidence: 0.9129991

01:02:17.275 --> 01:02:18.955 you know, a very hot

NOTE Confidence: 0.9129991

01:02:18.955 --> 01:02:20.955 topic within the surgical and

NOTE Confidence: 0.9129991

01:02:20.955 --> 01:02:21.455 cardiovascular

NOTE Confidence: 0.99901927

01:02:21.835 --> 01:02:22.335 communities

NOTE Confidence: 0.99214983

01:02:23.355 --> 01:02:25.215 around around how to optimize

NOTE Confidence: 0.98256034

01:02:25.675 --> 01:02:27.275 approaches to these patients. I

NOTE Confidence: 0.98256034

01:02:27.275 --> 01:02:28.494 think prevention,

NOTE Confidence: 0.99849296

01:02:29.355 --> 01:02:30.735 as well as better

NOTE Confidence: 0.8770877

01:02:32.369 --> 01:02:34.150 earlier presentation and evaluation

NOTE Confidence: 0.908535

01:02:34.690 --> 01:02:36.789 and and and restoration of

NOTE Confidence: 0.9676192

01:02:37.089 --> 01:02:38.210 of coronary flow, I think,

NOTE Confidence: 0.9676192

01:02:38.210 --> 01:02:39.269 has made a big difference

NOTE Confidence: 0.9676192

01:02:39.329 --> 01:02:40.230 in in this.

NOTE Confidence: 0.9889297

01:02:41.490 --> 01:02:42.869 You know, there

NOTE Confidence: 0.9413535

01:02:43.650 --> 01:02:44.849 there is a distinction I

NOTE Confidence: 0.9413535

01:02:44.849 --> 01:02:45.730 also would like to leave

NOTE Confidence: 0.9413535

01:02:45.730 --> 01:02:46.470 people with,

NOTE Confidence: 0.9983222

01:02:47.329 --> 01:02:47.829 between

NOTE Confidence: 0.99209976

01:02:48.345 --> 01:02:49.805 kind of this aneurysmal

NOTE Confidence: 0.9892013

01:02:51.065 --> 01:02:51.565 and

NOTE Confidence: 0.98585117

01:02:51.865 --> 01:02:53.725 the kind of surgical ventricular

NOTE Confidence: 0.9576139

01:02:54.665 --> 01:02:56.905 restoration or SVR or door

NOTE Confidence: 0.9576139

01:02:56.905 --> 01:02:59.065 type procedures that were and

NOTE Confidence: 0.9576139

01:02:59.065 --> 01:03:00.105 are still at some in

NOTE Confidence: 0.9576139

01:03:00.105 --> 01:03:00.765 some places,

NOTE Confidence: 0.9620732

01:03:01.065 --> 01:03:01.565 performed,

NOTE Confidence: 0.99921465

01:03:02.240 --> 01:03:03.680 which are really looking to

NOTE Confidence: 0.99921465

01:03:03.680 --> 01:03:04.420 kind of

NOTE Confidence: 0.88382155

01:03:05.359 --> 01:03:06.339 reduce the ventricular

NOTE Confidence: 0.95997566

01:03:06.799 --> 01:03:07.940 size to promote,

NOTE Confidence: 0.9460996

01:03:09.599 --> 01:03:11.440 forward flow and improved outcomes

NOTE Confidence: 0.9460996

01:03:11.440 --> 01:03:13.280 in heart failure patients, which

NOTE Confidence: 0.9460996

01:03:13.280 --> 01:03:14.559 were tested in in, you

NOTE Confidence: 0.9460996

01:03:14.559 --> 01:03:15.680 know, one of our one

NOTE Confidence: 0.9460996

01:03:15.680 --> 01:03:17.039 of my trials many, many

NOTE Confidence: 0.9460996

01:03:17.039 --> 01:03:18.365 years back. Publishers, like, in

NOTE Confidence: 0.9460996

01:03:18.365 --> 01:03:19.724 two thousand nine. It's dated

NOTE Confidence: 0.9460996

01:03:19.724 --> 01:03:21.645 now. But but, which didn't

NOTE Confidence: 0.9460996

01:03:21.645 --> 01:03:22.545 show an advantage.

NOTE Confidence: 0.8047668

01:03:22.925 --> 01:03:24.704 Hazard ratio was one of

NOTE Confidence: 0.97483575

01:03:25.085 --> 01:03:26.865 of, of of that procedure

NOTE Confidence: 0.97483575

01:03:27.005 --> 01:03:27.825 for kinda

NOTE Confidence: 0.7529807

01:03:28.444 --> 01:03:28.944 akinetic

NOTE Confidence: 0.95065093

01:03:29.244 --> 01:03:30.065 large ventricles.

NOTE Confidence: 0.94934964

01:03:30.860 --> 01:03:31.660 But I think this is

NOTE Confidence: 0.94934964

01:03:31.660 --> 01:03:33.100 a different situation, and these

NOTE Confidence: 0.94934964

01:03:33.100 --> 01:03:34.780 patients were serve certainly not

NOTE Confidence: 0.94934964

01:03:34.780 --> 01:03:35.280 randomized

NOTE Confidence: 0.85477513

01:03:35.580 --> 01:03:36.860 in in our trials because

NOTE Confidence: 0.85477513

01:03:36.860 --> 01:03:37.660 of of the size of

NOTE Confidence: 0.85477513

01:03:37.660 --> 01:03:38.320 this ventricle.

NOTE Confidence: 0.9430503

01:03:39.340 --> 01:03:40.380 But I think a very,

NOTE Confidence: 0.9430503

01:03:40.380 --> 01:03:41.600 very interesting congratulations.

NOTE Confidence: 0.9772701

01:03:41.980 --> 01:03:44.295 Wonderful job. And, congratulations to

NOTE Confidence: 0.9772701

01:03:44.454 --> 01:03:45.994 Charles for keeping this patient,

NOTE Confidence: 0.981021

01:03:46.535 --> 01:03:47.734 doing so well and for

NOTE Confidence: 0.981021

01:03:47.734 --> 01:03:49.015 Roland and and and the

NOTE Confidence: 0.981021

01:03:49.015 --> 01:03:50.535 whole team for for their

NOTE Confidence: 0.981021

01:03:50.535 --> 01:03:51.434 care. So

NOTE Confidence: 0.9668498

01:03:52.055 --> 01:03:52.954 Thanks, everyone.