

WEBVTT

NOTE duration:"00:16:20"

NOTE recognizability:0.898

NOTE language:en-us

NOTE Confidence: 0.9185471

00:00:10.410 --> 00:00:12.738 Perfect we can see your slides right.

NOTE Confidence: 0.9449614

00:00:18.220 --> 00:00:18.670 OK.

NOTE Confidence: 0.91799303625

00:00:20.980 --> 00:00:24.804 So hi, my name is Tom Lincoln neurosurgeon

NOTE Confidence: 0.91799303625

00:00:24.810 --> 00:00:27.310 heavy endovascular based practice

NOTE Confidence: 0.91799303625

00:00:27.310 --> 00:00:30.617 here at North Shore in Long Island.

NOTE Confidence: 0.91799303625

00:00:30.617 --> 00:00:31.962 One of the major centers

NOTE Confidence: 0.91799303625

00:00:31.962 --> 00:00:33.588 in the north wall system.

NOTE Confidence: 0.91799303625

00:00:33.590 --> 00:00:35.746 I was asked to talk today about

NOTE Confidence: 0.91799303625

00:00:35.746 --> 00:00:37.218 middle meningeal artery embolization

NOTE Confidence: 0.91799303625

00:00:37.218 --> 00:00:39.150 for chronic subdural hematoma.

NOTE Confidence: 0.91799303625

00:00:39.150 --> 00:00:42.470 A little bit of a change of subject.

NOTE Confidence: 0.91799303625

00:00:42.470 --> 00:00:44.396 In the stroke net conference here,

NOTE Confidence: 0.91799303625

00:00:44.400 --> 00:00:46.218 but I think.

NOTE Confidence: 0.91799303625

00:00:46.218 --> 00:00:48.036 Uhm, it becomes.
NOTE Confidence: 0.91799303625

00:00:48.040 --> 00:00:50.458 It's becoming more and more relevant
NOTE Confidence: 0.91799303625

00:00:50.458 --> 00:00:53.202 really in as more and more places are
NOTE Confidence: 0.91799303625

00:00:53.202 --> 00:00:55.725 doing this kind of intervention and a
NOTE Confidence: 0.91799303625

00:00:55.725 --> 00:00:57.600 vascular option for subdural hematoma,
NOTE Confidence: 0.91799303625

00:00:57.600 --> 00:00:59.859 we have a few clinical trials going on here.
NOTE Confidence: 0.91799303625

00:00:59.860 --> 00:01:02.730 As one of them is multi institutional
NOTE Confidence: 0.91799303625

00:01:02.730 --> 00:01:04.050 will get into at the end.
NOTE Confidence: 0.932118907777778

00:01:06.410 --> 00:01:08.795 So it's kind of a lot to get in,
NOTE Confidence: 0.932118907777778

00:01:08.800 --> 00:01:10.740 get through in 15 minutes,
NOTE Confidence: 0.932118907777778

00:01:10.740 --> 00:01:12.602 but so I might go pretty quickly
NOTE Confidence: 0.932118907777778

00:01:12.602 --> 00:01:13.879 through some parts of this,
NOTE Confidence: 0.932118907777778

00:01:13.880 --> 00:01:16.043 but a little bit of the background
NOTE Confidence: 0.932118907777778

00:01:16.043 --> 00:01:19.103 here so you know why do we need other
NOTE Confidence: 0.932118907777778

00:01:19.103 --> 00:01:20.870 methods to treat subdural hematoma
NOTE Confidence: 0.932118907777778

00:01:20.870 --> 00:01:23.131 and and one of the major issues

NOTE Confidence: 0.932118907777778

00:01:23.131 --> 00:01:24.980 with it is that it's classically

NOTE Confidence: 0.932118907777778

00:01:24.980 --> 00:01:26.480 very difficult pathology to treat,

NOTE Confidence: 0.932118907777778

00:01:26.480 --> 00:01:28.358 so there's very high recurrence rates.

NOTE Confidence: 0.932118907777778

00:01:28.360 --> 00:01:29.518 Literature says anywhere

NOTE Confidence: 0.932118907777778

00:01:29.518 --> 00:01:32.762 between kind of 10 to 30% or so,

NOTE Confidence: 0.932118907777778

00:01:32.762 --> 00:01:35.067 and it tends to affect.

NOTE Confidence: 0.932118907777778

00:01:35.070 --> 00:01:38.614 Older and sicker patients, and as we know,

NOTE Confidence: 0.932118907777778

00:01:38.620 --> 00:01:40.750 the population is aging in general,

NOTE Confidence: 0.932118907777778

00:01:40.750 --> 00:01:42.390 so this is increasing incidence.

NOTE Confidence: 0.932118907777778

00:01:42.390 --> 00:01:43.190 In general,

NOTE Confidence: 0.932118907777778

00:01:43.190 --> 00:01:45.190 chronic subdural hematoma that is,

NOTE Confidence: 0.932118907777778

00:01:45.190 --> 00:01:46.620 and this tends to affect

NOTE Confidence: 0.932118907777778

00:01:46.620 --> 00:01:47.764 patients who are older,

NOTE Confidence: 0.932118907777778

00:01:47.770 --> 00:01:49.021 have many comorbidities,

NOTE Confidence: 0.932118907777778

00:01:49.021 --> 00:01:51.106 tend to be on anticoagulation

NOTE Confidence: 0.932118907777778

00:01:51.106 --> 00:01:53.089 and any platelet agents.

NOTE Confidence: 0.932118907777778

00:01:53.090 --> 00:01:56.074 So it's certainly helpful to have a less

NOTE Confidence: 0.932118907777778

00:01:56.074 --> 00:01:58.230 invasive option compared to surgery.

NOTE Confidence: 0.932118907777778

00:01:58.230 --> 00:02:00.145 So just to go through

NOTE Confidence: 0.932118907777778

00:02:00.145 --> 00:02:02.060 why we think this works.

NOTE Confidence: 0.932118907777778

00:02:02.060 --> 00:02:03.824 So what happens when you have

NOTE Confidence: 0.932118907777778

00:02:03.824 --> 00:02:05.734 sort of this blood clot that

NOTE Confidence: 0.932118907777778

00:02:05.734 --> 00:02:07.399 forms in the subdural space?

NOTE Confidence: 0.932118907777778

00:02:07.400 --> 00:02:09.115 And traditionally this is this

NOTE Confidence: 0.932118907777778

00:02:09.115 --> 00:02:10.830 is initially caused by the

NOTE Confidence: 0.932118907777778

00:02:10.890 --> 00:02:12.725 tearing of bridging veins and

NOTE Confidence: 0.932118907777778

00:02:12.725 --> 00:02:14.560 acute hemorrhage in this space.

NOTE Confidence: 0.932118907777778

00:02:14.560 --> 00:02:16.996 But the the brain's reaction to it

NOTE Confidence: 0.932118907777778

00:02:16.996 --> 00:02:19.277 really is an inflammatory reaction

NOTE Confidence: 0.932118907777778

00:02:19.277 --> 00:02:21.931 where you have infiltrate infiltration

NOTE Confidence: 0.932118907777778

00:02:21.931 --> 00:02:23.586 of inflammatory cells you have.

NOTE Confidence: 0.932118907777778
00:02:23.590 --> 00:02:24.974 If I burn a lysis of the clot,
NOTE Confidence: 0.932118907777778
00:02:24.980 --> 00:02:27.020 it's trying to break it down into a
NOTE Confidence: 0.932118907777778
00:02:27.020 --> 00:02:29.901 more liquid type substance and and really,
NOTE Confidence: 0.932118907777778
00:02:29.901 --> 00:02:33.520 there's this in capsulation of this hematoma.
NOTE Confidence: 0.932118907777778
00:02:33.520 --> 00:02:36.004 And formation of a membrane around
NOTE Confidence: 0.932118907777778
00:02:36.004 --> 00:02:38.182 and also through it which we
NOTE Confidence: 0.932118907777778
00:02:38.182 --> 00:02:39.748 see in surgery in these chronic
NOTE Confidence: 0.932118907777778
00:02:39.748 --> 00:02:41.580 kind of membranous flocculated,
NOTE Confidence: 0.932118907777778
00:02:41.580 --> 00:02:44.780 subdural hematomas membrane itself
NOTE Confidence: 0.932118907777778
00:02:44.780 --> 00:02:47.980 becomes vascularized so there's
NOTE Confidence: 0.932118907777778
00:02:47.980 --> 00:02:49.936 no release of all these vascular
NOTE Confidence: 0.932118907777778
00:02:49.936 --> 00:02:50.914 endothelial growth factors.
NOTE Confidence: 0.932118907777778
00:02:50.920 --> 00:02:53.304 And if you take some of this membrane
NOTE Confidence: 0.932118907777778
00:02:53.304 --> 00:02:55.582 at surgery and send it to pathology
NOTE Confidence: 0.932118907777778
00:02:55.582 --> 00:02:57.710 we actually have found that these
NOTE Confidence: 0.932118907777778

00:02:57.710 --> 00:02:59.945 vessels within this membrane itself
NOTE Confidence: 0.932118907777778

00:02:59.945 --> 00:03:01.733 inflammatory cells and there's
NOTE Confidence: 0.932118907777778

00:03:01.740 --> 00:03:04.086 high staining for veg F so.
NOTE Confidence: 0.932118907777778

00:03:04.090 --> 00:03:05.765 It really turns out that
NOTE Confidence: 0.932118907777778

00:03:05.765 --> 00:03:06.770 chronic subdural hematoma,
NOTE Confidence: 0.932118907777778

00:03:06.770 --> 00:03:08.046 as opposed to acute,
NOTE Confidence: 0.932118907777778

00:03:08.046 --> 00:03:09.960 is really it really becomes an
NOTE Confidence: 0.932118907777778

00:03:10.031 --> 00:03:12.339 arterial pathology because the the
NOTE Confidence: 0.932118907777778

00:03:12.339 --> 00:03:14.304 new vascularization of this membrane
NOTE Confidence: 0.932118907777778

00:03:14.304 --> 00:03:17.220 leads to these leaky kind of fragile
NOTE Confidence: 0.932118907777778

00:03:17.220 --> 00:03:19.713 vessels that repeatedly bleedin sort of
NOTE Confidence: 0.932118907777778

00:03:19.713 --> 00:03:21.867 ooze into this collection over time.
NOTE Confidence: 0.932118907777778

00:03:21.870 --> 00:03:23.566 And while some chronic
NOTE Confidence: 0.932118907777778

00:03:23.566 --> 00:03:25.686 subdural's go away over time,
NOTE Confidence: 0.932118907777778

00:03:25.690 --> 00:03:27.174 the body is able to resorb it,
NOTE Confidence: 0.932118907777778

00:03:27.180 --> 00:03:27.694 others don't,

NOTE Confidence: 0.932118907777778
00:03:27.694 --> 00:03:29.493 and the thought now is that it's
NOTE Confidence: 0.932118907777778
00:03:29.493 --> 00:03:31.346 this repeated sort of kind of
NOTE Confidence: 0.932118907777778
00:03:31.346 --> 00:03:32.578 rebleeding into this collection
NOTE Confidence: 0.932118907777778
00:03:32.578 --> 00:03:34.197 that leads to the persistence.
NOTE Confidence: 0.932118907777778
00:03:34.200 --> 00:03:36.517 And recurrence, and many of these cases.
NOTE Confidence: 0.932118907777778
00:03:36.520 --> 00:03:37.772 So you see here,
NOTE Confidence: 0.932118907777778
00:03:37.772 --> 00:03:39.337 and generally when you have
NOTE Confidence: 0.932118907777778
00:03:39.337 --> 00:03:41.289 a subdural that persists,
NOTE Confidence: 0.932118907777778
00:03:41.290 --> 00:03:43.796 the thought is that this process outweighs
NOTE Confidence: 0.932118907777778
00:03:43.796 --> 00:03:45.759 the brains ability to resore bit.
NOTE Confidence: 0.932118907777778
00:03:45.760 --> 00:03:47.518 And where does this the vasculature
NOTE Confidence: 0.932118907777778
00:03:47.518 --> 00:03:49.511 come from in this membrane or the
NOTE Confidence: 0.932118907777778
00:03:49.511 --> 00:03:51.638 only place it can come from is is
NOTE Confidence: 0.932118907777778
00:03:51.638 --> 00:03:53.360 the adjacent dura and which comes
NOTE Confidence: 0.932118907777778
00:03:53.360 --> 00:03:54.950 from the middle meningeal artery,
NOTE Confidence: 0.932118907777778

00:03:54.950 --> 00:03:56.750 so essentially by shutting down
NOTE Confidence: 0.932118907777778

00:03:56.750 --> 00:03:58.829 the blood supply to the from
NOTE Confidence: 0.932118907777778

00:03:58.829 --> 00:04:00.077 the middle meningeal artery.
NOTE Confidence: 0.932118907777778

00:04:00.080 --> 00:04:02.210 To this membrane you arrest
NOTE Confidence: 0.932118907777778

00:04:02.210 --> 00:04:04.340 this process of this repeated.
NOTE Confidence: 0.932118907777778

00:04:04.340 --> 00:04:05.480 Bleeding and you can.
NOTE Confidence: 0.932118907777778

00:04:05.480 --> 00:04:07.190 You can in effect tip the
NOTE Confidence: 0.862052760434783

00:04:07.251 --> 00:04:08.883 scales there to now allow the
NOTE Confidence: 0.862052760434783

00:04:08.883 --> 00:04:10.890 rain to be able to resolve it.
NOTE Confidence: 0.862052760434783

00:04:10.890 --> 00:04:12.642 So that that's the theory behind
NOTE Confidence: 0.862052760434783

00:04:12.642 --> 00:04:14.567 how this works, and there's some
NOTE Confidence: 0.862052760434783

00:04:14.567 --> 00:04:17.252 support to a lot of this in in,
NOTE Confidence: 0.862052760434783

00:04:17.252 --> 00:04:18.220 in the angiography and
NOTE Confidence: 0.862052760434783

00:04:18.220 --> 00:04:19.430 and some of the imaging.
NOTE Confidence: 0.862052760434783

00:04:19.430 --> 00:04:22.153 So you know when you do a
NOTE Confidence: 0.862052760434783

00:04:22.153 --> 00:04:23.920 selective middle meningeal artery.

NOTE Confidence: 0.862052760434783

00:04:23.920 --> 00:04:26.118 A angiography you could see we have

NOTE Confidence: 0.862052760434783

00:04:26.118 --> 00:04:28.488 this kind of distal what we call a

NOTE Confidence: 0.862052760434783

00:04:28.488 --> 00:04:29.940 cotton wool like appearance of the

NOTE Confidence: 0.862052760434783

00:04:29.996 --> 00:04:31.676 of the distal branches of the man.

NOTE Confidence: 0.862052760434783

00:04:31.680 --> 00:04:35.376 This wispy NIS that you see where

NOTE Confidence: 0.862052760434783

00:04:35.380 --> 00:04:37.298 there could be supply to some of

NOTE Confidence: 0.862052760434783

00:04:37.298 --> 00:04:39.490 this vast new vascularised membrane.

NOTE Confidence: 0.862052760434783

00:04:39.490 --> 00:04:41.248 Uhm, you see this kind of

NOTE Confidence: 0.862052760434783

00:04:41.248 --> 00:04:42.810 leakiness into the subdural space,

NOTE Confidence: 0.862052760434783

00:04:42.810 --> 00:04:44.962 and in many times when you do the

NOTE Confidence: 0.862052760434783

00:04:44.962 --> 00:04:46.849 post-op scan after an embolization,

NOTE Confidence: 0.862052760434783

00:04:46.850 --> 00:04:49.484 you actually get this kind of

NOTE Confidence: 0.862052760434783

00:04:49.484 --> 00:04:51.240 subtle increased in density

NOTE Confidence: 0.862052760434783

00:04:51.317 --> 00:04:53.547 in the entire subdural space.

NOTE Confidence: 0.862052760434783

00:04:53.550 --> 00:04:54.990 Which the thought is that

NOTE Confidence: 0.862052760434783

00:04:54.990 --> 00:04:56.142 this is actually contrast.
NOTE Confidence: 0.862052760434783

00:04:56.150 --> 00:04:58.604 That kind of leaks in through
NOTE Confidence: 0.862052760434783

00:04:58.604 --> 00:05:00.240 this this leaky vasculature.
NOTE Confidence: 0.862052760434783

00:05:00.240 --> 00:05:02.608 And then finally, one of my favorite images.
NOTE Confidence: 0.862052760434783

00:05:02.610 --> 00:05:05.742 If you look at an AP projection of a
NOTE Confidence: 0.862052760434783

00:05:05.742 --> 00:05:08.140 selective and then a injection here,
NOTE Confidence: 0.862052760434783

00:05:08.140 --> 00:05:10.226 it really outlines perfectly what you see.
NOTE Confidence: 0.862052760434783

00:05:10.230 --> 00:05:11.590 This entire subdural hematoma
NOTE Confidence: 0.862052760434783

00:05:11.590 --> 00:05:13.290 on the kernel image here.
NOTE Confidence: 0.862052760434783

00:05:13.290 --> 00:05:15.586 So it's you really see this membrane
NOTE Confidence: 0.862052760434783

00:05:15.590 --> 00:05:17.930 surrounding the the hematoma
NOTE Confidence: 0.862052760434783

00:05:17.930 --> 00:05:20.855 that's being supplied by the.
NOTE Confidence: 0.862052760434783

00:05:20.860 --> 00:05:22.757 So when I was a fellow training
NOTE Confidence: 0.862052760434783

00:05:22.757 --> 00:05:24.840 at at Cornell with Doctor Nachman,
NOTE Confidence: 0.862052760434783

00:05:24.840 --> 00:05:27.138 who really kind of pioneered this,
NOTE Confidence: 0.862052760434783

00:05:27.140 --> 00:05:29.814 we started back in 2016 or so.

NOTE Confidence: 0.862052760434783
00:05:29.820 --> 00:05:31.626 Here's the example of the first
NOTE Confidence: 0.862052760434783
00:05:31.626 --> 00:05:33.303 five patients that we treated
NOTE Confidence: 0.862052760434783
00:05:33.303 --> 00:05:34.539 as primary treatment.
NOTE Confidence: 0.862052760434783
00:05:34.540 --> 00:05:37.600 So you know, prior to this,
NOTE Confidence: 0.862052760434783
00:05:37.600 --> 00:05:39.615 it really only been described
NOTE Confidence: 0.862052760434783
00:05:39.615 --> 00:05:41.630 internationally as kind of salvage
NOTE Confidence: 0.862052760434783
00:05:41.698 --> 00:05:44.034 therapy for multi recurrent subdural's.
NOTE Confidence: 0.862052760434783
00:05:44.034 --> 00:05:48.160 This was used for patients that essentially
NOTE Confidence: 0.862052760434783
00:05:48.160 --> 00:05:50.720 we were able to get to avoid surgery.
NOTE Confidence: 0.862052760434783
00:05:50.720 --> 00:05:51.192 Altogether,
NOTE Confidence: 0.862052760434783
00:05:51.192 --> 00:05:54.024 so one might say initially well,
NOTE Confidence: 0.862052760434783
00:05:54.030 --> 00:05:55.574 many sub tools go away on their own.
NOTE Confidence: 0.862052760434783
00:05:55.580 --> 00:05:57.379 So how do you know that these
NOTE Confidence: 0.862052760434783
00:05:57.379 --> 00:05:58.928 hematomas wouldn't have just went away?
NOTE Confidence: 0.862052760434783
00:05:58.930 --> 00:06:00.425 Well, these patients were selected
NOTE Confidence: 0.862052760434783

00:06:00.425 --> 00:06:02.446 because they show that they failed
NOTE Confidence: 0.862052760434783

00:06:02.446 --> 00:06:03.859 conservative management already,
NOTE Confidence: 0.862052760434783

00:06:03.860 --> 00:06:07.160 so this was progression of their subdural's.
NOTE Confidence: 0.862052760434783

00:06:07.160 --> 00:06:10.200 Despite observations, steroids, etc.
NOTE Confidence: 0.862052760434783

00:06:10.200 --> 00:06:12.160 And we did the embolization.
NOTE Confidence: 0.862052760434783

00:06:12.160 --> 00:06:13.600 You see, many of them.
NOTE Confidence: 0.862052760434783

00:06:13.600 --> 00:06:15.728 The subdural completely went away over time,
NOTE Confidence: 0.862052760434783

00:06:15.730 --> 00:06:17.914 and others it almost entirely went away.
NOTE Confidence: 0.862052760434783

00:06:17.920 --> 00:06:20.608 And all five were able to avoid
NOTE Confidence: 0.862052760434783

00:06:20.608 --> 00:06:22.800 any further surgical intervention.
NOTE Confidence: 0.862052760434783

00:06:22.800 --> 00:06:24.431 So we we went along and then
NOTE Confidence: 0.862052760434783

00:06:24.431 --> 00:06:26.207 the first 60 cases that we did,
NOTE Confidence: 0.862052760434783

00:06:26.210 --> 00:06:28.642 we published a couple of years ago and
NOTE Confidence: 0.862052760434783

00:06:28.642 --> 00:06:30.867 and really show that there are three
NOTE Confidence: 0.862052760434783

00:06:30.870 --> 00:06:32.844 major categories where this can be useful.
NOTE Confidence: 0.862052760434783

00:06:32.850 --> 00:06:33.768 So number one,

NOTE Confidence: 0.862052760434783
00:06:33.768 --> 00:06:35.910 it can be used instead of surgery
NOTE Confidence: 0.862052760434783
00:06:35.983 --> 00:06:38.245 in certain patients that are meet
NOTE Confidence: 0.862052760434783
00:06:38.245 --> 00:06:40.650 certain criteria which we can get into.
NOTE Confidence: 0.862052760434783
00:06:40.650 --> 00:06:43.226 It can be used as to treat recurrence
NOTE Confidence: 0.862052760434783
00:06:43.226 --> 00:06:45.427 after surgical evacuation and even there
NOTE Confidence: 0.862052760434783
00:06:45.427 --> 00:06:47.910 might be this prophylactic used to it.
NOTE Confidence: 0.862052760434783
00:06:47.910 --> 00:06:49.374 So say you have someone who
NOTE Confidence: 0.862052760434783
00:06:49.374 --> 00:06:51.017 has surgery and maybe you think
NOTE Confidence: 0.862052760434783
00:06:51.017 --> 00:06:52.547 they're high risk for recurrence.
NOTE Confidence: 0.862052760434783
00:06:52.550 --> 00:06:54.737 So you could sort of fend it off by
NOTE Confidence: 0.862052760434783
00:06:54.737 --> 00:06:56.887 doing this immediately after surgery,
NOTE Confidence: 0.862052760434783
00:06:56.890 --> 00:06:59.333 and in this study of 60 patients
NOTE Confidence: 0.862052760434783
00:06:59.333 --> 00:07:01.010 we were able to help
NOTE Confidence: 0.926881794444445
00:07:01.010 --> 00:07:03.746 91% of these patients avoid any
NOTE Confidence: 0.926881794444445
00:07:03.746 --> 00:07:05.114 further surgical treatment.
NOTE Confidence: 0.926881794444445

00:07:05.120 --> 00:07:06.915 And that's what we defined
NOTE Confidence: 0.926881794444445

00:07:06.915 --> 00:07:08.710 as the the primary endpoint.
NOTE Confidence: 0.926881794444445

00:07:08.710 --> 00:07:10.050 And really, you know,
NOTE Confidence: 0.926881794444445

00:07:10.050 --> 00:07:12.520 almost 70% overall also had a
NOTE Confidence: 0.926881794444445

00:07:12.520 --> 00:07:15.220 reduction in size greater than 50%.
NOTE Confidence: 0.926881794444445

00:07:15.220 --> 00:07:17.470 So, uhm. This is just describing
NOTE Confidence: 0.926881794444445

00:07:17.470 --> 00:07:19.800 a little bit more technique.
NOTE Confidence: 0.926881794444445

00:07:19.800 --> 00:07:21.420 There's been a few other larger
NOTE Confidence: 0.926881794444445

00:07:21.420 --> 00:07:23.507 studies now and and really two of the
NOTE Confidence: 0.926881794444445

00:07:23.507 --> 00:07:25.310 best papers that I chose to share.
NOTE Confidence: 0.926881794444445

00:07:25.310 --> 00:07:26.570 Here's one that was published
NOTE Confidence: 0.926881794444445

00:07:26.570 --> 00:07:27.830 last year where they did.
NOTE Confidence: 0.926881794444445

00:07:27.830 --> 00:07:29.185 It was a multicenter but
NOTE Confidence: 0.926881794444445

00:07:29.185 --> 00:07:29.998 non randomized trial.
NOTE Confidence: 0.926881794444445

00:07:30.000 --> 00:07:31.688 So there 154 embolization
NOTE Confidence: 0.926881794444445

00:07:31.688 --> 00:07:34.970 is done in 138 patients.

NOTE Confidence: 0.926881794444445

00:07:34.970 --> 00:07:38.076 There they defined a 93.5% success rate.

NOTE Confidence: 0.926881794444445

00:07:38.076 --> 00:07:39.240 Again, same thing,

NOTE Confidence: 0.926881794444445

00:07:39.240 --> 00:07:41.538 the primary endpoint being did any

NOTE Confidence: 0.926881794444445

00:07:41.540 --> 00:07:43.688 any of these patients require an

NOTE Confidence: 0.926881794444445

00:07:43.688 --> 00:07:45.310 additional treatment which would

NOTE Confidence: 0.926881794444445

00:07:45.310 --> 00:07:47.560 be surgery so very successful?

NOTE Confidence: 0.926881794444445

00:07:47.560 --> 00:07:50.150 And in this multicenter trial,

NOTE Confidence: 0.926881794444445

00:07:50.150 --> 00:07:52.040 right around that 70% mark again.

NOTE Confidence: 0.926881794444445

00:07:52.040 --> 00:07:54.290 Also for greater than 50%

NOTE Confidence: 0.926881794444445

00:07:54.290 --> 00:07:56.302 reduction in size overall.

NOTE Confidence: 0.926881794444445

00:07:56.302 --> 00:07:58.314 Uhm complication rate low.

NOTE Confidence: 0.926881794444445

00:07:58.320 --> 00:08:00.360 I mean they wrote 9% because

NOTE Confidence: 0.926881794444445

00:08:00.360 --> 00:08:02.960 that included those that actually

NOTE Confidence: 0.926881794444445

00:08:02.960 --> 00:08:04.602 failed treatment and headaches.

NOTE Confidence: 0.926881794444445

00:08:04.602 --> 00:08:07.422 So if you if you knock those two out

NOTE Confidence: 0.926881794444445

00:08:07.422 --> 00:08:09.462 there was there was one temporary
NOTE Confidence: 0.926881794444445

00:08:09.462 --> 00:08:11.869 facial droop in one seizure so overall
NOTE Confidence: 0.926881794444445

00:08:11.869 --> 00:08:14.048 kind of about 1.4% complication rate.
NOTE Confidence: 0.926881794444445

00:08:14.048 --> 00:08:15.236 There are dangers,
NOTE Confidence: 0.926881794444445

00:08:15.240 --> 00:08:15.617 collaterals,
NOTE Confidence: 0.926881794444445

00:08:15.617 --> 00:08:17.879 meaning potential collaterals from the Emma.
NOTE Confidence: 0.926881794444445

00:08:17.880 --> 00:08:20.340 To say the optomec artery which
NOTE Confidence: 0.926881794444445

00:08:20.340 --> 00:08:22.218 is well described and it's just
NOTE Confidence: 0.926881794444445

00:08:22.218 --> 00:08:24.127 something that we have to be
NOTE Confidence: 0.926881794444445

00:08:24.127 --> 00:08:25.617 careful about and lookout for.
NOTE Confidence: 0.926881794444445

00:08:25.620 --> 00:08:25.998 Uhm,
NOTE Confidence: 0.926881794444445

00:08:25.998 --> 00:08:28.266 and then here is a single
NOTE Confidence: 0.926881794444445

00:08:28.266 --> 00:08:29.930 center prospective study where
NOTE Confidence: 0.926881794444445

00:08:29.930 --> 00:08:32.200 embolization was done for patients
NOTE Confidence: 0.926881794444445

00:08:32.200 --> 00:08:34.557 that they considered high risk
NOTE Confidence: 0.926881794444445

00:08:34.557 --> 00:08:36.429 for recurrence after surgery.

NOTE Confidence: 0.926881794444445
00:08:36.430 --> 00:08:39.223 So 91 sub drills in 89 patients
NOTE Confidence: 0.926881794444445
00:08:39.223 --> 00:08:41.560 after surgery got embolization.
NOTE Confidence: 0.926881794444445
00:08:41.560 --> 00:08:43.626 And they compared this to 174
NOTE Confidence: 0.926881794444445
00:08:43.626 --> 00:08:45.856 historical controls and they saw
NOTE Confidence: 0.926881794444445
00:08:45.856 --> 00:08:48.522 that in the patients that got
NOTE Confidence: 0.926881794444445
00:08:48.522 --> 00:08:50.527 embolization there was only a
NOTE Confidence: 0.926881794444445
00:08:50.527 --> 00:08:53.180 4% recurrence rate or needing an
NOTE Confidence: 0.926881794444445
00:08:53.180 --> 00:08:54.980 additional intervention compared to
NOTE Confidence: 0.926881794444445
00:08:54.980 --> 00:08:57.190 14% in their historical controls.
NOTE Confidence: 0.926881794444445
00:08:57.190 --> 00:08:59.518 So this suggests that it could
NOTE Confidence: 0.926881794444445
00:08:59.518 --> 00:09:02.042 be very effective for helping to
NOTE Confidence: 0.926881794444445
00:09:02.042 --> 00:09:04.958 prevent recurrence in in subbed roles.
NOTE Confidence: 0.926881794444445
00:09:04.960 --> 00:09:07.240 Here at Northwell at Northshore,
NOTE Confidence: 0.926881794444445
00:09:07.240 --> 00:09:08.552 we've had similar experience.
NOTE Confidence: 0.926881794444445
00:09:08.552 --> 00:09:10.520 We've done about 80 patients here,
NOTE Confidence: 0.926881794444445

00:09:10.520 --> 00:09:12.446 and this doesn't include the Lenox
NOTE Confidence: 0.926881794444445

00:09:12.446 --> 00:09:14.034 Hill experience where doctors are
NOTE Confidence: 0.926881794444445

00:09:14.034 --> 00:09:15.749 really there is doing them as well.
NOTE Confidence: 0.926881794444445

00:09:15.750 --> 00:09:18.320 We've had three patients fail,
NOTE Confidence: 0.926881794444445

00:09:18.320 --> 00:09:21.032 meaning they came back with growth
NOTE Confidence: 0.926881794444445

00:09:21.032 --> 00:09:23.642 of their residual subdural requiring
NOTE Confidence: 0.926881794444445

00:09:23.642 --> 00:09:24.686 further surgery.
NOTE Confidence: 0.926881794444445

00:09:24.690 --> 00:09:27.440 So essentially 96% success rate.
NOTE Confidence: 0.926881794444445

00:09:27.440 --> 00:09:29.654 There was one complication out of
NOTE Confidence: 0.926881794444445

00:09:29.654 --> 00:09:32.659 all 77 that could be considered major.
NOTE Confidence: 0.926881794444445

00:09:32.660 --> 00:09:34.400 There was a partial kind of
NOTE Confidence: 0.926881794444445

00:09:34.400 --> 00:09:37.730 partial blurry vision. In one eye.
NOTE Confidence: 0.926881794444445

00:09:37.730 --> 00:09:39.230 And there were three mortality's,
NOTE Confidence: 0.926881794444445

00:09:39.230 --> 00:09:40.259 all unrelated symbolisation.
NOTE Confidence: 0.926881794444445

00:09:40.259 --> 00:09:41.288 Just you know,
NOTE Confidence: 0.926881794444445

00:09:41.290 --> 00:09:43.234 these are a lot of these are sick

NOTE Confidence: 0.926881794444445
00:09:43.234 --> 00:09:45.230 patients with some more advanced lymphoma,
NOTE Confidence: 0.926881794444445
00:09:45.230 --> 00:09:48.580 multi multi system organ failure.
NOTE Confidence: 0.926881794444445
00:09:48.580 --> 00:09:48.898 Uhm,
NOTE Confidence: 0.926881794444445
00:09:48.898 --> 00:09:51.124 and I include this chart because it
NOTE Confidence: 0.926881794444445
00:09:51.124 --> 00:09:53.740 really helps to show how this works overtime.
NOTE Confidence: 0.926881794444445
00:09:53.740 --> 00:09:56.368 So certainly this can't be done
NOTE Confidence: 0.926881794444445
00:09:56.368 --> 00:09:59.013 for patients that need you know
NOTE Confidence: 0.926881794444445
00:09:59.013 --> 00:10:01.260 urgent relief of pressure from
NOTE Confidence: 0.926881794444445
00:10:01.260 --> 00:10:03.100 from a large collection.
NOTE Confidence: 0.926881794444445
00:10:03.100 --> 00:10:05.038 This is something that works overtime,
NOTE Confidence: 0.926881794444445
00:10:05.040 --> 00:10:06.741 so even if you look at this
NOTE Confidence: 0.926881794444445
00:10:06.741 --> 00:10:08.389 chart at the two week Mark,
NOTE Confidence: 0.926881794444445
00:10:08.390 --> 00:10:09.965 most of the time there's not that
NOTE Confidence: 0.926881794444445
00:10:09.965 --> 00:10:11.849 much of a reduction in size yet,
NOTE Confidence: 0.926881794444445
00:10:11.850 --> 00:10:13.000 but certainly you want to
NOTE Confidence: 0.926881794444445

00:10:13.000 --> 00:10:14.150 see that it's not getting
NOTE Confidence: 0.928494137

00:10:14.199 --> 00:10:15.967 any bigger and then by six weeks you
NOTE Confidence: 0.928494137

00:10:15.967 --> 00:10:17.568 really start to see this drop off in
NOTE Confidence: 0.928494137

00:10:17.568 --> 00:10:19.538 size and by three months many of them.
NOTE Confidence: 0.928494137

00:10:19.538 --> 00:10:20.766 And in our experience,
NOTE Confidence: 0.928494137

00:10:20.770 --> 00:10:23.885 over 90% have significant reduction in size.
NOTE Confidence: 0.928494137

00:10:23.890 --> 00:10:27.160 Many of them resolved completely.
NOTE Confidence: 0.928494137

00:10:27.160 --> 00:10:30.013 Uhm, so you know where could this be useful?
NOTE Confidence: 0.928494137

00:10:30.020 --> 00:10:31.625 So certainly you have these
NOTE Confidence: 0.928494137

00:10:31.625 --> 00:10:33.230 patients that have chronic subdural
NOTE Confidence: 0.928494137

00:10:33.285 --> 00:10:35.019 hematomas that are not going away,
NOTE Confidence: 0.928494137

00:10:35.020 --> 00:10:36.064 or even getting bigger,
NOTE Confidence: 0.928494137

00:10:36.064 --> 00:10:37.630 but haven't quite gotten to the
NOTE Confidence: 0.928494137

00:10:37.684 --> 00:10:39.448 point yet where it's causing so much
NOTE Confidence: 0.928494137

00:10:39.448 --> 00:10:41.109 Mass Effect that they need surgery.
NOTE Confidence: 0.928494137

00:10:41.110 --> 00:10:42.363 This is a great option to sort

NOTE Confidence: 0.928494137

00:10:42.363 --> 00:10:43.120 of fend it off,

NOTE Confidence: 0.928494137

00:10:43.120 --> 00:10:45.320 and in many times help it go away.

NOTE Confidence: 0.928494137

00:10:45.320 --> 00:10:47.042 Patients that you might want to avoid

NOTE Confidence: 0.928494137

00:10:47.042 --> 00:10:48.579 surgery for for whatever reason,

NOTE Confidence: 0.928494137

00:10:48.580 --> 00:10:50.990 whether they have significant comorbidities.

NOTE Confidence: 0.928494137

00:10:50.990 --> 00:10:53.726 Patients that need to be restarted

NOTE Confidence: 0.928494137

00:10:53.726 --> 00:10:55.550 on antiplatelets or anticoagulation

NOTE Confidence: 0.928494137

00:10:55.622 --> 00:10:56.470 very quickly.

NOTE Confidence: 0.928494137

00:10:56.470 --> 00:10:57.958 Those are some of the options,

NOTE Confidence: 0.928494137

00:10:57.960 --> 00:11:01.537 so just a few quick illustrative cases.

NOTE Confidence: 0.928494137

00:11:01.540 --> 00:11:03.065 Here's a patient with diffuse

NOTE Confidence: 0.928494137

00:11:03.065 --> 00:11:04.954 large B cell lymphoma that had

NOTE Confidence: 0.928494137

00:11:04.954 --> 00:11:06.784 this small subdural that was just

NOTE Confidence: 0.928494137

00:11:06.784 --> 00:11:08.030 being watched over time.

NOTE Confidence: 0.928494137

00:11:08.030 --> 00:11:09.200 It's platelets were very low.

NOTE Confidence: 0.928494137

00:11:09.200 --> 00:11:11.008 Here was as low as 34,000,
NOTE Confidence: 0.928494137

00:11:11.008 --> 00:11:13.864 so he's not a good surgical candidate.
NOTE Confidence: 0.928494137

00:11:13.870 --> 00:11:15.990 Overtime it got bigger and bigger to the
NOTE Confidence: 0.928494137

00:11:15.990 --> 00:11:17.948 point where it started causing worsening
NOTE Confidence: 0.928494137

00:11:17.948 --> 00:11:20.210 symptoms and had acute hemorrhage into it.
NOTE Confidence: 0.928494137

00:11:20.210 --> 00:11:22.450 Again, bad surgical candidate with
NOTE Confidence: 0.928494137

00:11:22.450 --> 00:11:23.794 this severe thrombocytopenia.
NOTE Confidence: 0.928494137

00:11:23.800 --> 00:11:25.870 So we tried this embolization procedure.
NOTE Confidence: 0.928494137

00:11:25.870 --> 00:11:30.214 Just a few before and after Ma injections.
NOTE Confidence: 0.928494137

00:11:30.220 --> 00:11:32.284 And if you look at the post-op scan
NOTE Confidence: 0.928494137

00:11:32.284 --> 00:11:34.117 compared to about six months later,
NOTE Confidence: 0.928494137

00:11:34.120 --> 00:11:36.514 he had this MRI and it was
NOTE Confidence: 0.928494137

00:11:36.514 --> 00:11:37.198 completely resolved.
NOTE Confidence: 0.928494137

00:11:37.200 --> 00:11:39.335 So great option for this
NOTE Confidence: 0.928494137

00:11:39.335 --> 00:11:40.616 poor surgical candidate.
NOTE Confidence: 0.928494137

00:11:40.620 --> 00:11:40.938 Uh,

NOTE Confidence: 0.928494137

00:11:40.938 --> 00:11:42.846 here's a a patient work that's

NOTE Confidence: 0.928494137

00:11:42.846 --> 00:11:44.870 very relevant to this conference.

NOTE Confidence: 0.928494137

00:11:44.870 --> 00:11:47.290 A patient who is 70 and had many T as

NOTE Confidence: 0.928494137

00:11:47.363 --> 00:11:49.659 well as a small stroke in the past,

NOTE Confidence: 0.928494137

00:11:49.660 --> 00:11:51.412 and he's been managed by neurologist

NOTE Confidence: 0.928494137

00:11:51.412 --> 00:11:52.580 on aspirin and Plavix.

NOTE Confidence: 0.928494137

00:11:52.580 --> 00:11:54.656 Because of that started to develop

NOTE Confidence: 0.928494137

00:11:54.656 --> 00:11:56.734 some kind of intermittent mild word

NOTE Confidence: 0.928494137

00:11:56.734 --> 00:11:58.636 finding difficulty and was found to

NOTE Confidence: 0.928494137

00:11:58.636 --> 00:12:01.116 have this acute on chronic subdural here.

NOTE Confidence: 0.928494137

00:12:01.120 --> 00:12:01.398 Again,

NOTE Confidence: 0.928494137

00:12:01.398 --> 00:12:03.066 not a great candidate and someone

NOTE Confidence: 0.928494137

00:12:03.066 --> 00:12:05.042 you certainly want to get back on

NOTE Confidence: 0.928494137

00:12:05.042 --> 00:12:06.134 their antiplatelets very quickly

NOTE Confidence: 0.928494137

00:12:06.134 --> 00:12:07.628 because of his stroke history.

NOTE Confidence: 0.928494137

00:12:07.630 --> 00:12:09.690 So if you watch overtime,
NOTE Confidence: 0.928494137

00:12:09.690 --> 00:12:11.685 here's the two weeks cans getting smaller,
NOTE Confidence: 0.928494137

00:12:11.690 --> 00:12:13.510 six weeks and three months.
NOTE Confidence: 0.928494137

00:12:13.510 --> 00:12:14.230 Even smaller,
NOTE Confidence: 0.928494137

00:12:14.230 --> 00:12:15.670 almost completely resolved this
NOTE Confidence: 0.928494137

00:12:15.670 --> 00:12:17.110 tiny tiny bit left,
NOTE Confidence: 0.928494137

00:12:17.110 --> 00:12:18.811 and we were able to restart his
NOTE Confidence: 0.928494137

00:12:18.811 --> 00:12:20.326 both of his antiplatelets pretty
NOTE Confidence: 0.928494137

00:12:20.326 --> 00:12:22.860 quickly and able to prevent him from
NOTE Confidence: 0.928494137

00:12:22.860 --> 00:12:24.868 having any further ischemic events.
NOTE Confidence: 0.928494137

00:12:24.870 --> 00:12:25.328 Uhm?
NOTE Confidence: 0.928494137

00:12:25.328 --> 00:12:28.076 So just quickly 'cause I'm running
NOTE Confidence: 0.928494137

00:12:28.076 --> 00:12:29.450 out of time.
NOTE Confidence: 0.928494137

00:12:29.450 --> 00:12:30.866 Just another quick case.
NOTE Confidence: 0.928494137

00:12:30.866 --> 00:12:33.344 Examples and 91 year old who was
NOTE Confidence: 0.928494137

00:12:33.344 --> 00:12:35.353 on Coumadin who had a Burr hole

NOTE Confidence: 0.928494137
00:12:35.353 --> 00:12:38.467 that it then ended up getting this
NOTE Confidence: 0.928494137
00:12:38.467 --> 00:12:39.949 embolization procedure effort
NOTE Confidence: 0.928494137
00:12:39.949 --> 00:12:40.937 expanded further.
NOTE Confidence: 0.928494137
00:12:40.940 --> 00:12:43.404 You could just see overtime how this
NOTE Confidence: 0.928494137
00:12:43.404 --> 00:12:45.668 slowly goes away up to three months
NOTE Confidence: 0.928494137
00:12:45.668 --> 00:12:47.850 all the way on the right there.
NOTE Confidence: 0.928494137
00:12:47.850 --> 00:12:48.298 Uhm?
NOTE Confidence: 0.928494137
00:12:48.298 --> 00:12:50.986 Few other case examples I'll skip
NOTE Confidence: 0.928494137
00:12:50.986 --> 00:12:53.418 through for the sake of time
NOTE Confidence: 0.928494137
00:12:53.420 --> 00:12:55.112 and then certainly are when when
NOTE Confidence: 0.928494137
00:12:55.112 --> 00:12:56.240 this is done postoperatively,
NOTE Confidence: 0.928494137
00:12:56.240 --> 00:12:57.654 the curve looks a little bit different.
NOTE Confidence: 0.928494137
00:12:57.660 --> 00:12:59.025 You see this initial drop
NOTE Confidence: 0.928494137
00:12:59.025 --> 00:13:00.390 off in size because of
NOTE Confidence: 0.887942797
00:13:00.448 --> 00:13:02.240 the surgery and then you hope to
NOTE Confidence: 0.887942797

00:13:02.240 --> 00:13:04.190 see the slow tapering down overtime
NOTE Confidence: 0.887942797

00:13:04.190 --> 00:13:06.065 where that residual less left
NOTE Confidence: 0.887942797

00:13:06.065 --> 00:13:09.428 after surgery continues to go away.
NOTE Confidence: 0.887942797

00:13:09.430 --> 00:13:11.918 So you know, can this be used after
NOTE Confidence: 0.887942797

00:13:11.918 --> 00:13:14.367 surgery to help prevent a recurrence?
NOTE Confidence: 0.887942797

00:13:14.370 --> 00:13:16.570 And certainly not every patient is the same.
NOTE Confidence: 0.887942797

00:13:16.570 --> 00:13:18.446 So this example on the left there
NOTE Confidence: 0.887942797

00:13:18.446 --> 00:13:20.399 was a patient having seizures are
NOTE Confidence: 0.887942797

00:13:20.399 --> 00:13:21.855 relatively smaller subdural and
NOTE Confidence: 0.887942797

00:13:21.855 --> 00:13:24.101 his brain re expanded nicely and
NOTE Confidence: 0.887942797

00:13:24.101 --> 00:13:25.916 there's not much residual left.
NOTE Confidence: 0.887942797

00:13:25.920 --> 00:13:27.648 He's at a much lower risk for recurrence,
NOTE Confidence: 0.887942797

00:13:27.650 --> 00:13:29.156 probably then say this patient on
NOTE Confidence: 0.887942797

00:13:29.156 --> 00:13:30.844 the right who had bilateral large
NOTE Confidence: 0.887942797

00:13:30.844 --> 00:13:32.424 collections and then post op.
NOTE Confidence: 0.887942797

00:13:32.430 --> 00:13:33.695 The brain just doesn't really

NOTE Confidence: 0.887942797

00:13:33.695 --> 00:13:35.459 re expand and you have all this

NOTE Confidence: 0.887942797

00:13:35.459 --> 00:13:36.809 error and a lot of residual.

NOTE Confidence: 0.887942797

00:13:36.810 --> 00:13:38.310 This is somebody who would probably

NOTE Confidence: 0.887942797

00:13:38.310 --> 00:13:39.534 benefit from anything that you

NOTE Confidence: 0.887942797

00:13:39.534 --> 00:13:40.638 can do to help prevent this.

NOTE Confidence: 0.887942797

00:13:40.640 --> 00:13:41.550 This recurrence.

NOTE Confidence: 0.830701071428571

00:13:43.630 --> 00:13:45.569 Uh, to quote some, you know we

NOTE Confidence: 0.830701071428571

00:13:45.569 --> 00:13:47.815 did have a few failures and that

NOTE Confidence: 0.830701071428571

00:13:47.815 --> 00:13:50.250 could be a topic for another time.

NOTE Confidence: 0.830701071428571

00:13:50.250 --> 00:13:52.134 It could be related to variations

NOTE Confidence: 0.830701071428571

00:13:52.134 --> 00:13:54.714 in the anatomy of the of the MA and

NOTE Confidence: 0.830701071428571

00:13:54.714 --> 00:13:56.780 and the degree to which you are

NOTE Confidence: 0.830701071428571

00:13:56.780 --> 00:13:58.625 able to affectively embolize them.

NOTE Confidence: 0.830701071428571

00:13:58.630 --> 00:14:01.078 Uhm, so generally you have various

NOTE Confidence: 0.830701071428571

00:14:01.078 --> 00:14:03.698 techniques that you can use micro

NOTE Confidence: 0.830701071428571

00:14:03.698 --> 00:14:05.526 particles which are injected,
NOTE Confidence: 0.830701071428571

00:14:05.530 --> 00:14:07.763 you know, kind of distally into the
NOTE Confidence: 0.830701071428571

00:14:07.763 --> 00:14:09.600 distal branches or liquid embolic's.
NOTE Confidence: 0.830701071428571

00:14:09.600 --> 00:14:11.900 Some are good for different
NOTE Confidence: 0.830701071428571

00:14:11.900 --> 00:14:14.844 situations depending on anatomy.
NOTE Confidence: 0.830701071428571

00:14:14.844 --> 00:14:16.465 Uhm, and certainly you
NOTE Confidence: 0.830701071428571

00:14:16.465 --> 00:14:17.940 know that last note there.
NOTE Confidence: 0.830701071428571

00:14:17.940 --> 00:14:20.658 This is not again meant to be done in
NOTE Confidence: 0.830701071428571

00:14:20.658 --> 00:14:23.067 patients that require urgent evacuation.
NOTE Confidence: 0.830701071428571

00:14:23.070 --> 00:14:25.302 Uhm, so a few of the trials going on.
NOTE Confidence: 0.830701071428571

00:14:25.310 --> 00:14:27.446 We are here apart of the EMBOLIZED trial,
NOTE Confidence: 0.830701071428571

00:14:27.450 --> 00:14:30.168 which is a multicenter, randomized trial.
NOTE Confidence: 0.830701071428571

00:14:30.170 --> 00:14:31.598 That national PSRR, Dr.
NOTE Confidence: 0.830701071428571

00:14:31.598 --> 00:14:32.669 Norman from Cornell,
NOTE Confidence: 0.830701071428571

00:14:32.670 --> 00:14:34.546 Dr Davies from Buffalo,
NOTE Confidence: 0.830701071428571

00:14:34.546 --> 00:14:37.850 where there's two cohorts based on size,

NOTE Confidence: 0.830701071428571
00:14:37.850 --> 00:14:39.770 the smaller size or randomized,
NOTE Confidence: 0.830701071428571
00:14:39.770 --> 00:14:42.735 either observation only or embolization
NOTE Confidence: 0.830701071428571
00:14:42.735 --> 00:14:44.855 only and then the larger size
NOTE Confidence: 0.830701071428571
00:14:44.855 --> 00:14:46.380 greater than 15 millimeters or
NOTE Confidence: 0.830701071428571
00:14:46.439 --> 00:14:48.519 randomized to surgery only versus
NOTE Confidence: 0.830701071428571
00:14:48.519 --> 00:14:49.767 embolization plus surgery.
NOTE Confidence: 0.830701071428571
00:14:49.770 --> 00:14:53.075 So overall, they're up to about 88 patients.
NOTE Confidence: 0.830701071428571
00:14:53.075 --> 00:14:53.605 In total,
NOTE Confidence: 0.830701071428571
00:14:53.605 --> 00:14:56.218 we're hoping to get up to 400 and you know,
NOTE Confidence: 0.830701071428571
00:14:56.220 --> 00:14:58.135 hopefully this will provide better
NOTE Confidence: 0.830701071428571
00:14:58.135 --> 00:15:00.514 evidence for using this again either.
NOTE Confidence: 0.830701071428571
00:15:00.514 --> 00:15:03.046 Upfront as treatment instead of surgery,
NOTE Confidence: 0.830701071428571
00:15:03.050 --> 00:15:05.510 or in addition, as an agent.
NOTE Confidence: 0.830701071428571
00:15:05.510 --> 00:15:07.690 Therapy. In addition to surgery.
NOTE Confidence: 0.830701071428571
00:15:07.690 --> 00:15:10.486 We also started at a postoperative
NOTE Confidence: 0.830701071428571

00:15:10.486 --> 00:15:11.884 trial here ourselves.
NOTE Confidence: 0.830701071428571

00:15:11.890 --> 00:15:13.870 So for the patients that don't
NOTE Confidence: 0.830701071428571

00:15:13.870 --> 00:15:15.843 qualify for that trial and need
NOTE Confidence: 0.830701071428571

00:15:15.843 --> 00:15:17.613 to go to more urgent surgery.
NOTE Confidence: 0.830701071428571

00:15:17.620 --> 00:15:20.578 Randomized to the surgery only versus
NOTE Confidence: 0.830701071428571

00:15:20.578 --> 00:15:22.550 surgery followed by embolization.
NOTE Confidence: 0.830701071428571

00:15:22.550 --> 00:15:24.720 You know, up to a week afterwards.
NOTE Confidence: 0.830701071428571

00:15:24.720 --> 00:15:26.530 Uhm?
NOTE Confidence: 0.830701071428571

00:15:26.530 --> 00:15:28.098 We're going to have ourselves here at
NOTE Confidence: 0.830701071428571

00:15:28.098 --> 00:15:29.700 North Shore, as well as Lennox Hill,
NOTE Confidence: 0.830701071428571

00:15:29.700 --> 00:15:31.084 about to be involved,
NOTE Confidence: 0.830701071428571

00:15:31.084 --> 00:15:32.814 and hopefully this will again
NOTE Confidence: 0.830701071428571

00:15:32.814 --> 00:15:34.491 provide better evidence for whether
NOTE Confidence: 0.830701071428571

00:15:34.491 --> 00:15:36.936 this can be useful to help prevent
NOTE Confidence: 0.830701071428571

00:15:36.936 --> 00:15:38.388 recurrence after surgery.
NOTE Confidence: 0.830701071428571

00:15:38.390 --> 00:15:40.770 For patients that require surgery.

NOTE Confidence: 0.830701071428571
00:15:40.770 --> 00:15:42.690 So that's kind of a whirlwind
NOTE Confidence: 0.830701071428571
00:15:42.690 --> 00:15:43.650 tour through this.
NOTE Confidence: 0.830701071428571
00:15:43.650 --> 00:15:45.168 Thank you for inviting me and
NOTE Confidence: 0.830701071428571
00:15:45.168 --> 00:15:46.180 thank you for listening.
NOTE Confidence: 0.787641152666667
00:15:46.830 --> 00:15:48.590 Thank you so much,
NOTE Confidence: 0.787641152666667
00:15:48.590 --> 00:15:50.790 Doctor Link a really excellent
NOTE Confidence: 0.787641152666667
00:15:50.790 --> 00:15:53.230 presentation and definitely a hot topic.
NOTE Confidence: 0.787641152666667
00:15:53.230 --> 00:15:56.270 MMA embolization so you know.
NOTE Confidence: 0.787641152666667
00:15:56.270 --> 00:15:59.742 I know at Brown here we do some
NOTE Confidence: 0.787641152666667
00:15:59.742 --> 00:16:01.845 MMA embolization and I'm sure
NOTE Confidence: 0.787641152666667
00:16:01.845 --> 00:16:05.021 other sites and the RCC do so so
NOTE Confidence: 0.787641152666667
00:16:05.021 --> 00:16:08.421 you know if we can help with any
NOTE Confidence: 0.787641152666667
00:16:08.421 --> 00:16:10.266 preliminary data or anything or
NOTE Confidence: 0.787641152666667
00:16:10.266 --> 00:16:12.827 if you have thoughts about a small
NOTE Confidence: 0.787641152666667
00:16:12.827 --> 00:16:15.354 scale study and within the RCC I
NOTE Confidence: 0.787641152666667

00:16:15.354 --> 00:16:17.776 think this would be a great idea.

NOTE Confidence: 0.787641152666667

00:16:17.780 --> 00:16:20.096 Uhm, for the sake of time,

NOTE Confidence: 0.787641152666667

00:16:20.100 --> 00:16:20.001 where two men