

**JONATHAN
LENA:**

So my name's Dr. Jonathan Lena. I'm one of the endovascular neurosurgeons here at the Medical University of South Carolina.

So here we're looking at a CT angiogram of the head and neck of one of our patients who-- you can see that there is a blockage of the right internal carotid artery. And now we're looking at the actual angiogram and thrombectomy. We've just gotten access into the femoral artery. We're putting up one of the main catheters into the aortic arch, and we're trying to get that catheter right now into the right common carotid artery.

And so at this point in time, we're setting up for just a [INAUDIBLE] or angiogram of the head and neck, trying to identify exactly where the blockage is. So the first thing that we end up doing is injecting contrast through that main catheter into the carotid artery on the right hand side, and that lets us visualize where the blockage is exactly.

And so now we're navigating the catheter into the right internal carotid artery, and we're injecting contrast as we're doing it. The inner catheter is staying stable, and then we're actually advancing the outer catheter over that inner catheter into the-- pretty far along the internal carotid artery. We've removed the internal catheter, so now we're just functioning as we just have one catheter that's acting as our guide catheter, the main catheter that's going to stay in place and allows us to have a working channel to remove the clot through.

So all we're doing here is setting up for an angiogram or a view of the blockage and the blood vessels in the head and neck. And here we can see that there's a clot in the carotid artery as it's going into the skull. And this case was special in that we were one of the first centers in the nation to be exposed or have access to this new, larger catheter that makes it easier to remove the clot. And it's quicker and in theory safer for the patient.

So here we're just putting that new catheter, the ACE068, into the guide catheter. We're advancing up through, and we're going to just get it into the right internal carotid artery. And here you can see the guide catheter, and that ACE068 catheter is coming up. And it is now out of the guide and into the internal carotid artery on the right side.

So we're removing the wire that we advanced that ACE068 catheter over, and now we're hooking that catheter up to a vacuum device or a suction device, which is going to help us remove the clot that's blocking the right internal carotid artery. And as we're sucking the clot, we're also trying to advance the catheter or push the catheter even higher into the internal carotid artery. And it's actually gone into one of the branches of the internal carotid artery, the right middle cerebral artery. And this is something that's actually ended up being very nice for us as it essentially was able to engulf the clot while still aspirating and advancing it, which wasn't necessarily always able to be done before.

And here on the right hand side of the screen, you can see we're slowly able to bring blood back, and essentially aspirate the clot or suck the clot out that's blocking that carotid artery. So we've now disconnected the tubing or the vacuum tubing, and we're doing a quick angiogram. And this is demonstrating that we have, in fact, removed the clot and restored normal blood flow to the brain. And it's only taken us about 4 and 1/2 minutes.