Dr Andrew Thamboo, ENT Surgeon

Outside-In Draf 3 - ENT Surgical Teaching Video

Duration: 5 minutes and 16 seconds

Hi, I'm Dr Andrew Thamboo from the St Paul's Science Center here at the University of British Columbia, and today, we're going to talk about sinus procedures to optimize your outcomes for your sinus patients.

This next video is the Outside-In Draf 3.

Some beginner tips in doing the Outside-In Draf 3: I recommend that you do a full ethmoidectomy and Draf 2A frontal sinusotomy, and place some neuropatties into the frontal recess against the posterior table. This will protect you from the skull base when doing this procedure. The first step is then the lateral de-mucosalization of the mucosa over the vertical process of the maxilla. Here we use cautery with the bent needle to make these cuts. We remove the mucosa over that vertical process of the maxilla up to the roof of the nose. We then make our septal cut in front of the septal body. Once this is done, we then elevate that mucosa off the bone, with the aim to find the first olfactory phyla.

In this case, this individual had a previous septoplasty, therefore you will see and appreciate the scarring of the mucosa to the contralateral side. Here we are elevating the mucosa, and you can appreciate the first olfactory phyla, which is also associated with a blood vessel.

Once this is done, we have now identified where the posterior skull base is the cribriform. I then perform a subtectomy. Here we use a microdebrider, but you can use different

instruments, like a needle tip, cautery, a back biter, through cutting instruments to do so. I then use a drill to take down the septum all the way to the skull base. The next step is to drill out the vertical process of the maxilla with the drill. And here we're trying to drill down to the periosteum, as you can appreciate here.

Once you've done this, you then do this to the contralateral side. And once this is complete on both sides, you then drill out the floor of the frontal sinus so you're basically going from skin to skin. The nice thing about doing the frontal sinusotomy as well, is that you can almost do an outside in and an inside out draf 3. The nice thing about putting the neuropatties into the frontal recess, as you can appreciate in this case, is that the anterior posterior dimension into the frontal sinus can be sometimes quite tight. Therefore, when drilling, you may actually drill right into the posterior table. But when you tape neuropatties in there, as an early learner, you can prevent this from happening,

As you can see here and appreciate, we continue to thin out the frontal beak to form the inverted U shape.

The nice thing about this procedure, we're able to do this with a zero degree scope and a straight drill. A lot of this is done by rolling the head back and placing a shoulder roll under this individual. Once this is done, we then use a microbider to clean up the residual tissue here the middle turbine, and now you can see nicely into the frontal sinus. So now this is the final limits of the Draf 3. Anteriorly, the periosteum of the frontal beak, laterally, the periosteum of both lateral nasal walls and posteriorly, where the first olfactory phyla was as well. You can see the septum still intact, where the cartilages and bony junction come together.

The next part is a frontal sinus stent placement. Here we place this right into the frontal sinus cavity. And if you want to look at the details on how to make that stent, you can appreciate it from the video to the left. Now what is key here is that when we place the stent

in to the frontal sinus cavity, we use nasal pore to bolster this stent against the diluted areas. By doing this, it helps regenerate the mucosa along the bone and prevent stenosis. Some individuals may place three mucosa grafs, but we found this works well. And you can now appreciate the healed frontal draft three procedure.

I hope you appreciated those surgical pearls, if you're looking for more opportunities to learn, to improve your surgical outcomes for your patients, definitely look for courses across Canada.