

BroadcastMed | Kalthorncaptions

So the patient was a gentleman who had horrible leg pain.

Some people call that sciatica.

It's pain that originates from a nerve in the low back that radiates down one or both legs.

The patient had a big lumbar disc herniation on his MRI scan.

We had sent them for a variety of non-operative modalities to try to get him better without having to do surgery.

He got steroid injections, went through physical therapy, and all the routine conservative things to deal with this type of problem.

So despite that, he still had significant pain down the leg that was quite severe and interfering with his ability to enjoy his life.

The procedure that we offered him was a minimally invasive, or tubular, microdiscectomy where you make a small, roughly 18 millimeter incision on the patient's back and dock a series of dilators down on top of the lamina bone which is the bone just next to the nerve roots in the low back.

After you've docked down with one of these dilators, you can place a minimally invasive retractor system which looks like a small tube which is attached to the bed.

At that point, you drill away some of the bone, remove what's called the ligamentum on top of the nerve roots there, and gently retract the nerve root over and take out the herniated disk.

If you're used to using the microscope, there is a little bit of a transition period to get used to using the 3D exoscope.

You're wearing 3D glasses and your posture just needs to be relaxed from the beginning.

So when you start using the exoscope, you just need to realize that you can relax, you can use your muscles in a more ergonomic fashion.

With the exoscope technology, you're able to more easily and comfortably take out a disc herniation in someone's back, especially through a minimally invasive surgery which traditionally has been limited by the viewing ability through the operative microscope.

The exoscope allows you to zoom in with higher definition than the regular microscope, in my opinion.

You're able to see different angles that you necessarily would have a lot of trouble seeing with the traditional microscope.

You're able to easily move the exoscope around in different angles in your operative field with a robotic arm attached to the exoscope.

You're able to put a pointer down into the field and point exactly where you want to see and the exoscope will move into that line of sight.

The exoscope will store different positions so you can say that you want to look more medially or laterally and the exoscope will move into that position.

There are ways to store settings and go back to that initial position later on in the surgery.

So you can flip back to that other view and not having to remember where that was or have to maneuver a big microscope around in that field.

I think it just overall reduces a lot of our frustrations and so I think if we're able to provide a procedure where that's easier, and more comfortable, and fluid for your patient than the patients are going to have less time under general anesthesia and easier time getting through their surgery.

It just makes it also a lot easier for everyone in that room to see the surgery, for your scrub nurse and the circulator to anticipate what needs to happen next.

You find that your scrub nurse is able to see what the next steps are in the surgery and he or she will just start to hand you instruments without having to ask for them because they know the upcoming steps.

That's not always possible with the traditional microscope.

So it really builds a team environment in the operating room.

It allows you to more efficiently and safely take care of the patient.