

BroadcastMed | mus_013565_Iris-Rocha

So the artificial iris implant procedure is usually indicated for patients with an arrhythmia.

Means patients without the iris or the collar part of the eye.

So that can be a congenital problem, congenital aniridia, or acquired.

For example, someone that had trauma or maybe if someone that had a complicated cataract surgery.

So we actually were able to perform the very first artificial iris implant after FDA approval in the United States here at MUSC in December of 2018.

So the device was actually approved in 2018.

So it's a very unique procedure.

Basically what we do we take a picture of the patient's contralateral eye, and actually the implant is usually made in Germany, comes from Germany.

And it's all hand made in order to copy the patient's contralateral eye.

So it's a small incision procedure.

We don't need to open the cornea completely.

So the incision is about 2.75 to three millimeters.

And now we fold the iris, and we use a very small injector to inject the iris, the artificial iris into the eye.

This is a very important procedure because a patient with aniridia usually presents with a very severe photophobia, or light sensitivity.

And sometimes they complain of blurry vision or double vision.

The iris is not only a cosmetic procedure, but is a functional procedure because those patients they have really severe light sensitivity.

So it's really important to be able to offer this procedure here at MUSC.

I would like to describe a case that we performed recently.

This was a 73-year-old male that had a traumatic injury many years ago in 2013.

And he had a ruptured globe.

And during the trauma, he lost the iris, the core part of the eye, and his crystalline lens.

So he had again traumatic aniridia.

And he was a fake.

So he was not able to see.

His vision was just counting fingers, and he was wearing a fake contact lenses, a very thick contact lens.

But again he had severe light sensitivity.

He was not able to drive during the day because of the sun, and even at night because of halos and glare.

So this was therefore a complex case.

We started the case, we always need to do an anterior vectractory to clean all the vitreous first.

And then we plan a secondary intraocular lens implant.

And then the artificial iris implant.

So this is all performed using just as mowing season.

And we just prepare the cornea because we need to suture the lens first, and then suture the artificial iris implant.

When we perform an artificial iris implant, initially during the FDA trial, some of the investigators, they were just injecting the implant inside of the eye.

But then we had some case reports showing that when that implant moves inside the eye, that can cause what we call the UGHS syndrome, uveitis glaucoma high femor syndrome.

So then we've learned that is important to suture.

So in preparation for the implant, we usually do what we call peritomy, then we open, we use a little cotary, and then we create just two veto sclera groups, so with a 69 blade.

And then we use sclerotomy, just create tiny holes in the sclera where we basically pass the sutures for the artificial iris.

MUSC is a tertiary center.

So we always see a lot of complex cases, patients that had eye injuries, trauma to the eye, and they usually come to see us with no vision at all.

They are a fake ache at traumatic aniridia.

And I think this procedures definitely depart to what we call the anterior segment reconstruction.

We're really reconstructing the eye and the anatomical structures.

So I think it's a very exciting procedure, with not restoring the cosmetic side of things when you do an iris implant but it does the functional.

I saw the patients they can see better and they can begin drive at night, they can just play golf and be able to see again, and have a normal life.

In terms of visual recovery, we may expect a pressure spike when they have their surgery.

So we always ask our patients to come back when they have their surgery.

And some patients, they may develop a little cornea within or some corneal folds.

So the recovery is really variable.

It really depends on the case.

Patients may be seeing well within the first week after surgery, it may take a few weeks.