Patient Stories

He Thought His Headache Was No Big Deal. It Turned Out to Be a Giant Brain Aneurysm

Originally published August 23, 2017 Last reviewed January 12, 2022 Reading Time: 4 minutes

Search our blog

Search our blog

Go

News & Magazine

Newsroom

HSC News

USC Health

Topics

Allergies and Asthma

Bone and Joint Health

Brain Health

Brain Tumors

Breaking Myths and Misconceptions

Breast Cancer

Breast Health

Cancer

Colon Cancer

COVID-19

Diabetes

Digestive Health

See All Topics

When Marco Mejia stepped out of a movie theater one night with an excruciating headache, he didn't know it would be the start of a terrifying health battle.

The soft-spoken 34-year-old typically enjoyed an active lifestyle, spending much of his free time taking long walks in the park or playing basketball, and he had been taking adult education classes. But that all changed when Marco started experiencing unbearable pain in his head.

"I didn't think it was so serious because I always had headaches," Marco says. "But they became more intense."

The headaches started to happen more often, and simple over-the-counter pain relievers barely dulled them at all. One afternoon a headache struck that was so severe, it caused Marco to faint and wake up vomiting.

That incident was scary enough to send him to his local hospital in search of answers. There, the doctors discovered that he had an intracranial (brain) aneurysm, which is a weakness in one of the brain's blood vessels that causes it to balloon and fill with blood. It can put pressure on surrounding nerves or brain tissue, and it can be fatal if it ruptures.

Marco was promptly taken to USC Verdugo Hills Hospital for further diagnostics, which revealed his aneurysm was causing excess fluid to build up in his brain — a condition known as hydrocephalus.

After doctors placed a cerebral shunt to drain the fluid, he was referred to Jonathan J. Russin, MD, a neurosurgeon at Keck Medicine of USC, director of cerebrovascular surgery at Keck Hospital of USC, assistant surgical director at the USC Neurorestoration Center, and assistant professor of

clinical neurological surgery at the Keck School of Medicine of USC.

A case of ?bad luck'

Marco's young age and overall case was particularly interesting to Russin, because as he put it, Marco's aneurysm was "freakishly large." Normal-sized aneurysms range from minuscule to 25 millimeters, and anything larger is considered "giant" — Marco's was 30 millimeters.

Aneurysms can develop in anyone, but they're more common if you smoke, take certain drugs such as cocaine and amphetamines, are female, have high blood pressure and/or a family history of aneurysms. But, none of these things applied to Marco.

Marco's anterior cerebral artery, which feeds blood to the middle of the brain, was the location of the aneurysm. Typically, there are two anterior cerebral arteries, one for the left and the second for the right half of the brain. However, Marco had a single, dominant anterior cerebral artery that supplied blood to both sides of his brain. This doubles the amount of blood flowing from one side, opening up a greater possibility of having an aneurysm.

According to Russin, the presence of a single artery, rather than two, occurred during the development of Marco's brain. As for why his brain developed the way it did, Russin calls it "bad luck."

An aneurysm the size of Marco's would have a 40% chance of rupturing within five years, explains Russin. Ruptured aneurysms can be fatal in approximately 40% of cases, according to the American Stroke Association.

The operation

"An aneurysm this big is a significant problem," says Russin . "The whole vessel gets massive, and you can't just clip it because these two major arteries need to have blood flow in them, or the patient can suffer a debilitating stroke." Still, Russin knew he needed to find a way to operate on Marco. "With someone this young, you really need a solution that gets rid of the problem."

Because of the importance of the arteries associated with Marco's aneurysm, it needed to be bypassed through a process called revascularization, or surgically restoring blood flow to a place in which there is a blockage.

"If you can bypass the aneurysm — get blood beyond it — then you can shut it down," Russin explains.

The bypass needed to be done right in the middle of the brain, which isn't where they are typically done. To meet this unique challenge, Russin and his team needed to rely on ingenuity. They took a portion of Marco's radial artery, a major artery on the underside of the forearm, and used it to connect the superficial temporal artery, a major scalp artery, to his anterior cerebral arteries and ultimately, bypass the area with the aneurysm. As for the aneurysm itself, it wouldn't need to be removed; with that area cut off and no longer in use, it would shrink on its own over time.

The surgery wasn't without some major challenges, including having to open the aneurysm in order to allow it to collapse within the clips used to occlude it, but it was ultimately successful.

"I'm grateful for Dr. Russin and my second opportunity at life because the situation was very grave," Marco says. "Everyone was very attentive — from the nurses and doctors to the cleaning personnel. They took really good care of me."

Russin notes that the only indicator Marco went through such a complex brain surgery are his incisions. "He has his scars, but he's walking around with an opportunity to pursue his dreams".

Indeed he is. Marco is on the road to recovery and back to taking long walks in his favorite neighborhood park. He's getting ready to start school again, and he's taken to reading history in his spare time.

Topics

brain aneurysm | Dr. Jonathan J. Russin | headaches | hydrocephalus | neurology | surgery

Billy Gil

Billy Gil is a freelance writer, covering medicine, music and film.

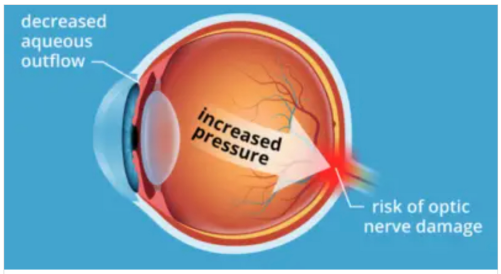
Related Blog Articles

Patient Stories

Patient Finds Breast Cancer Care Close to Home in Arcadia

Adrienne Bolger shares how Keck Medicine of USC's Arcadia team helped her receive world-class breast cancer treatment in her own...

Read more



Eye Care

When Blindness Attacks: How Research and Cutting-Edge Clinical Techniques Saved...

Vanessa Ho was just beginning her Saturday morning when she suddenly felt intense pain and blurry vision in her right...

Read more

Eye Care

The Corneal Correction: How a Specialty Scleral Lens Restored a...

Three years ago, an outside clinic diagnosed Maria Contreras with keratoconus, a degenerative eye disease that causes thinning and bulging...

Read more