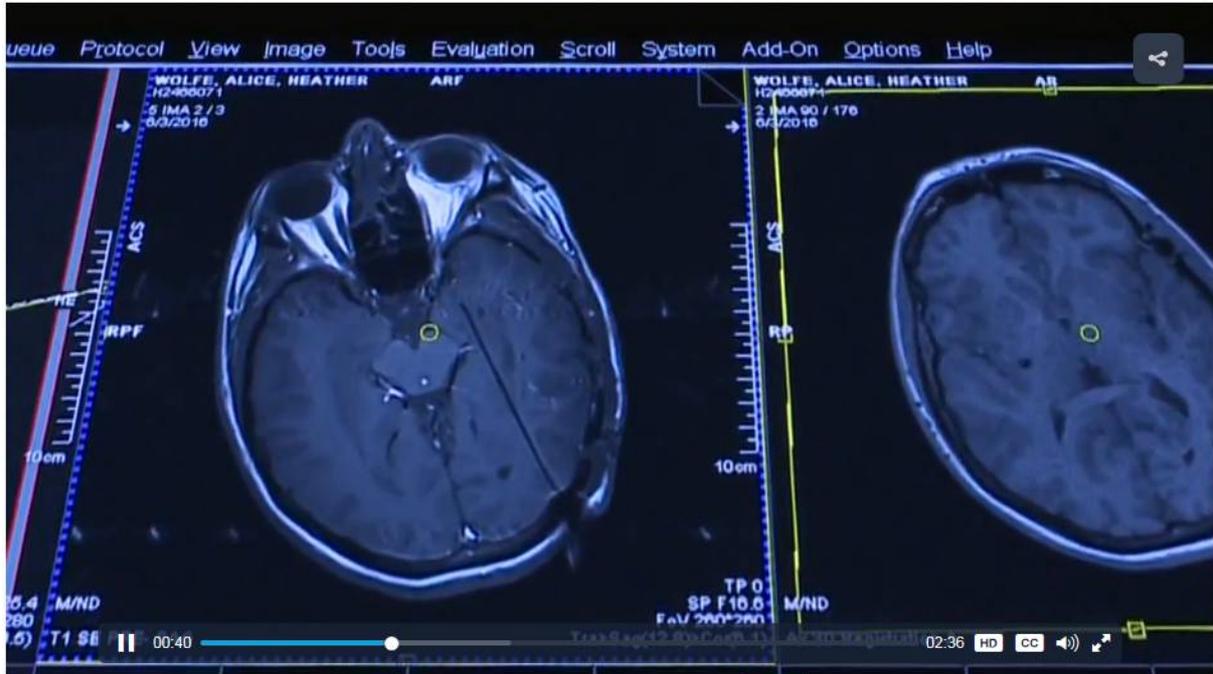


New UW Medicine robotic tool aids precise brain surgery



Alyce Wolfe is a preschool teacher with a gift. The ability to capture beauty outside and put it on canvas.

“This is one of my recent ones that I just sold it’s called heavenly clouds,” says Wolfe. But it’s tough to hold a paintbrush when you have seizures.

“I’ve had epilepsy my entire life. Like I would have them one every other day,” says Wolfe.

Wolfe had brain surgery four years ago. It took care of the bigger seizures, but not the small ones. This year they got a lot more frequent.

That’s how she ended up at Harborview Medical Center with neurosurgeon Jeff Ojemann.

“She’s a teacher and has very good cognitive skills one of the challenges with epilepsy surgery is treating the seizures without hurting the normal brain,” says Ojemann, a neurosurgeon at UW Medicine.

Memory loss can be a side-effect of conventional surgery. But Harborview has a new hi-tech tool that is a game-changer.

They call it “Rosa” a robotic laser probe that can reach deep parts of the brain with computer-guided precision.

“The laser is very useful when we know the target is deep like it was in her case. But we know we want to minimize the amount of tissue that we want to go through to reach the target,” says Dr. Ojemann.

The computer directs the probe to the right location; then Wolfe goes into the MRI machine, and the laser goes to work.

“We’ll give a small amount of heat that comes from the laser, so it’s not a visible laser, it’s a laser that generates heat, and it does it just in the targeted area. It will only be a mild fever to that part of the brain, but to the part of the brain I want to damage, it will get so hot it literally cooks it,” says Ojemann

The Rosa robotic device is being compared to a GPS for the brain. Ojemann says they continue to find new uses for the surgical tool.

For Wolfe, it’s part of the hippocampus which seems to be the cause of her seizures.

“The screen lets us look at exactly where the heat is going, and it shows up as color.

The orange appears where we’re starting to damage that part of the brain; that’s what we wanted to target,” says Dr. Ojemann.

A few weeks later.

“I haven’t had any seizures, and I’m really excited about that,” says Wolfe.

And very few side-effects too. Wolfe hopes to go back to work full time and concentrate on her art.

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