

Tyler Button

Barrow surgeons use latest techniques to remove tumor from young teacher's spine

by Melissa Morrison



Tyler Button is back in his classroom after a spine-tumor scare.

History teacher Tyler Button was playing basketball with some of his high school students when an overzealous opponent hit him from behind. When Button's neck was still aching a few days later, he went to the emergency room for a muscle relaxant.

Turns out, he had a tumor the size of a racquetball imbedded in his spine. "They said they were surprised my spine was able to hold my head up," Button says. "It was eating my spine away. I should have been paralyzed or dead."

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Several hours of surgery, a bout of high-tech radiation, and a year later, Button, who is 25 and engaged to be married, is tumor-free.

Had he not discovered the mass in time, his neurosurgeon says, it would have further eroded the bones of his cervical vertebrae to the point where a similar accident would likely have rendered Button quadriplegic, or worse.

"I hate to wax philosophic, but if this tiny incident hadn't happened, dramatic things would have," says Button, who teaches at the Peoria campus of the Austin Center for Exceptional Students, whose student body is learning disabled and emotionally handicapped.

"It kind of makes you question the idea of fate and whether this was meant to happen."

'High-priced real estate'

The tumor was located in the junction where the spinal cord meets the brain stem and is fed by two vertebral arteries, which were tangled in the tumor. "We were working in a very small area with a lot of high-priced real estate," says neurosurgeon Dr. Nicholas Theodore.

Removing the tumor took the latest in neurosurgical techniques.

Button lay face down, so the surgeons—Dr. Theodore and his partner Dr. William L. White—could reach around the spinal cord to access the tumor.

"The approach that we used was going from behind to take this tumor out in a fairly radical way," says Dr. Theodore, who is director of trauma service at Barrow Neurological Institute. "A lot of people probably wouldn't have done it two years ago. Our surgery techniques are on the cutting edge, especially in difficult cases like Tyler's."

During the operation, the surgeons referred to a real-time CT scan to guide them. Such navigational techniques have long been used for brain surgery, but only recently have they been perfected for the spine.

After the surgeons removed the tumor, along with parts of Button's spine, they replaced the missing bone with a piece from the young man's hip, fusing together three of his cervical vertebrae.

Radiation via robotic arm

The surgery was followed by radiation treatment using a CyberKnife, which directs a convergence of more than 100 beams of radiation on a tightly focused spot, thus sparing most healthy tissue. The machine allowed neurosurgeon Dr. Randall Porter to program it to deliver its potent radiation via robotic arm to Button's lesion. As a result, the patient suffered few side effects.

"It looks like a giant projector and a giant arm thing similar to the arm of a space shuttle," Button says. "It's so accurate, it's able to miss nerves and arteries."

"I thought it was going to be cool till I actually went through it."

Button had to wear a mesh mask—"very medieval"—that was fixed in place, immobilizing him for each hour-plus session of the weeklong treatment.

Drs. Theodore, White and Porter's combined effort is a prime example of the team approach Barrow takes toward tumor cases. "Just taking the tumor out is not enough," Dr. Theodore says. "Even if the patient doesn't need radiation, they do need close follow-up to make sure the tumor doesn't recur."

As for Button, he and his longtime girlfriend, Melissa Austin, made it official over the holidays. They plan to marry next spring.

He has reminders from the experience in his classroom. He's hung the CyberKnife face mask on the wall there. And the student who was responsible for the fateful neck injury frequently stops in.

"He comes by all the time saying he saved my life," Button says. "He honestly did save my life, but I don't let his head get too big." ■