

*Akron case one of about 50 in the world, is in medical journal*

## Bicyclist's tumor rarest of the rare

### He survives stroke, heart attack

By Tracy Wheeler

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Thomas Jowhar was 58, healthy, and in good enough shape to easily put in 125 miles a week on his Trek 2000 nine-speed road bike. Yet there he was in July in the emergency room of Akron General Medical Center, suffering from a stroke and a heart attack.

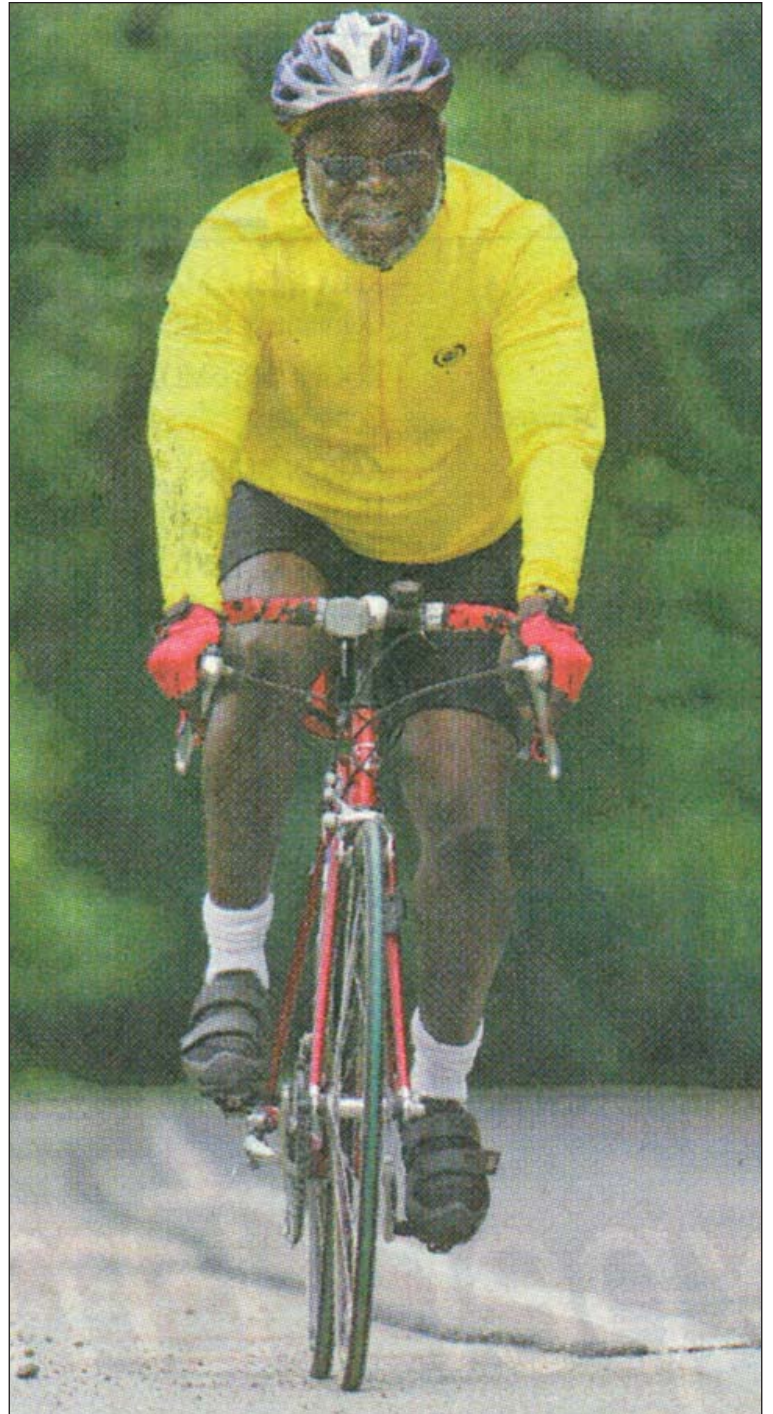
This shouldn't be happening, Jowhar and his doctors thought. This doesn't make sense. Just hours earlier, he had been biking around Peninsula, where, after topping a hill on Riverview Road, he couldn't catch his breath. He bent over. He lay down. Nothing helped.

After a half hour, he flagged down a passing police officer, who called for an ambulance. EMT workers checked his vital signs and cooled him down, and he began to feel normal again. As Jowhar drove home, though, his condition turned from uncharacteristic to strange to scary.

Water dribbled down his chin when he tried to take a drink. His face grew numb. "I'm drooling. My face felt weird, like I'd been to the dentist and everything was numb," he said. "I had weakness on one side. I was also incoherent. I was talking, but the words weren't English."

It was a stroke. Later, as doctors were monitoring the stroke, the chest pains came. It didn't take doctors long to figure out what was happening. The question was why it was happening.

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**Bicyclist Thomas Jowhar, 59, rides through the Cuyahoga Valley on Tuesday. An extremely rare tumor was discovered in his heart last year. Two months after surgery, he was better than normal.**



**Thomas Jowhar puts air into his Trek 2000 nine-speed road bike on Tuesday. He had a heart attack and stroke simultaneously last year.**

## Doctors write on case in thoracic journal

To make the riddle even more difficult to solve, Jowhar's symptoms gradually disappeared. Within six hours, most of his symptoms were gone. By the next morning, he felt normal again. No chest pain. No weakness. No numbness.

"We began to ask ourselves, 'How can a young guy in such perfect shape have a stroke and a heart attack?'" said Dr. Emil Hayek, medical director of Akron General's Heart & Vascular Center.

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Typically, heart attacks and strokes are caused by blockages lodged in blood vessels. In the case of a stroke, a blockage in the carotid artery or within the small blood vessels of the brain stops blood flow and oxygen to the brain. In a heart attack, a blockage in the coronary artery blocks the supply of blood and oxygen to the heart.

In Jowhar's case, doctors found neither. Instead, what they saw clearly was a gaggle of blood vessels leading to a tumor in his heart, along with a small hole in his heart that had been there since birth.

"That wouldn't have been first on my list of choices," Hayek said. "Whatever it was, we knew it was something relatively unusual because we don't see this happening to young, healthy people."

But a tumor?

"None of us expected ahead of time that this is what it would turn out to be." Especially not this kind of tumor. Tumors in the heart are rare to begin with, but this one -- known as cardiac paraganglioma, or pheochromocytoma -- is among the rarest of the rare.

The odd thing about these tumors is that they are made up of adrenal cells, which are produced in the adrenal glands atop the kidneys. When adrenal tumors are found, they are typically in the abdomen. How these cells get into the heart to form a tumor is unknown.

### Rarity of case

It's not something that's covered in medical school. Few cardiologists will see even one case in their careers. Only about 50 cases have been identified worldwide.

"It took a lot just to find published articles in the literature," Hayek said. "There's just scant (information) written about it.... It's just really, really bizarre."

Hayek suspects the adrenal cells were probably in Jowhar's heart since before birth, although they probably hadn't formed a tumor until he was older.

Because these tumors are made up of adrenal cells, the tumors release adrenaline -- a natural hormone that increases blood pressure and heart rate when the body is under stress.

As for the heart attack, the tumor was stealing a significant amount of blood from the heart, which could have thrown off oxygen levels or pumping activity. It was also releasing adrenaline, which could have constricted arteries near the heart. Or, as with the stroke, a small piece of the tumor may have broken off and briefly lodged in an artery.

It's all just guesswork at this point.

In some cases, the only treatment is a heart transplant. With Jowhar, though, surgeons were able to remove the tumor -- which was benign -- and it has little chance of returning.

Two months after surgery, he was back to normal. In fact, better than normal. "Now I'm not getting tired like I used to," he said.

And he has become the subject of a research article by Hayek (along with Drs. Michael Hughes, Eric Speakman, Hugh Miller and Patrick Stocker) in the *Annals of Thoracic Surgery*, although Jowhar is referred to only as "a 58-year-old man with long-standing Stage II hypertension."

"It's just something that happened," Jowhar said. "There's no reason (the tumors) show up; they just do. I look at it as I always take things: It could've been a helluva lot worse."

"I'm happy to be alive and able to tell people about it. It's an affirmation that if you're doing things to keep yourself in shape and eating right and exercising, that you can really survive a lot."