
When 41-year-old Pierce McManus coughed up so much blood that his shower floor turned crimson one morning in 2011, he wrote it off as the result of overzealous celebrating the night before. A New York City–area native, Pierce was a producer of digital advertising now living in Washington, DC, and had just qualified for the Boston Marathon. He was feeling in great shape.

A few months later, he casually mentioned the incident to his doctor in Washington and she immediately ordered tests. After a battery of exams, scans, and a bronchoscopy to examine the inside of the airways (bronchi) in his lungs, Pierce was shocked when, a few weeks later, he was

scans, and a bronchoscopy to examine the inside of the airways (bronchi) in his lungs, Pierce was shocked when, a few weeks later, he was informed that he had a leiomyosarcoma in his chest.

Sarcomas are a family of rare cancers that arise in the soft tissues that connect, support, and surround other parts of the body. Leiomyosarcomas usually originate in the smooth muscle cells of the uterine wall and affect women in their 40s and 50s.

"What's *that* doing in my lung?!" Pierce recalls exclaiming.

He asked his parents to come down from their home in Rockland County, New York, to accompany him when he visited a surgeon in Washington. The surgeon indicated he was very concerned about the tumor because of its location, and that Pierce would likely lose at least the upper lobe of his lung – and possibly his entire lung.

Pierce asked the surgeon to take extra care because he had a registration confirmation card for the holy grail of running – the Boston Marathon. "He looked at me like I was crazy," Pierce says.

Tests showed that the cancer had not spread elsewhere in his body, but his Washington oncologist and pulmonologist recommended that Pierce have radiation therapy after the surgery to "mop up any remaining cancer cells."

"Why don't you focus your energies on getting cancer-free in 2012?" the doctors counseled when Pierce again mentioned the upcoming race.

"Until that point I was basically fine," he says. "I thought 'I can handle this.'"

## A Second Opinion Changes Everything

Pierce's parents now urged him to get a second opinion and suggested Memorial Sloan Kettering. Stunned and scared, he agreed.

After contacting the Physician Referral Service and securing an appointment with medical oncologist and and sarcoma specialist Mary Louise Keohan, Pierce followed the hospital's website instructions on preparing for a first appointment — including requesting that medical records be sent to the hospital.

Dr. Keohan examined Pierce and asked him to see her colleague, thoracic (chest) surgeon Robert J. Downey.

"It was so easy to talk to him," Pierce remembers of this first meeting with the surgeon. "And he said he thought I would only lose ten minutes off my running time!"

Neither radiation therapy nor chemotherapy was ever part of the conversation. "Dr. Downey just talked about doing another bronchoscopy to map out the surgery and some three-dimensional imaging to construct a surgical approach."

The reason for Dr. Downey's confidence was that Memorial Sloan Kettering pathologists and other thoracic oncology physicians suspected that the mass in Pierce's lung had been misdiagnosed. If they were proved correct after a more comprehensive evaluation of the tumor following surgery, no additional treatment would be necessary.

Memorial Sloan Kettering's Cristina R. Antonescu, Director of Bone and Soft Tissue Pathology, had examined Pierce's records and concluded that the lesion in his chest was not a leiomyosarcoma but something altogether different: a glomus tumor – a type of growth that is typically eradicated by surgery alone and does not require additional therapy.

"We have extensive experience in diagnosing even the rarest forms of these tumors," explains Dr. Antonescu. A member of the Memorial Sloan Kettering faculty since 1999, she works with colleagues from surgery, medical oncology, and radiation therapy to care for patients with these very complex diseases — and to help establish accurate pathologic diagnoses and information on grading and staging that help guide critical treatment decisions.

## Still One in a Million

"When I went back two and a half weeks later, Dr. Downey had a big smile on his face," says Pierce. "He said, 'Remember I said your case was one in a million – a leiomyosarcoma in your chest? I have some news. You're still a rarity, but of a different type. It's what's called a glomus tumor, equally rare, and what it is doing in your chest I have no idea.'"

"Typically you get bad news that only gets worse," says Pierce. "But for me, the story went in the other direction. It started with the bad – and got

better.”

Dr. Downey presented the case to the Memorial Sloan Kettering Thoracic Tumor Board whose members agreed with the conclusion that the mass in Pierce’s lung was a glomus tumor and that while challenging to remove, it could be done. He proposed cutting across the airway above the tumor and at an angle below it, and then reattaching the right lung to the trachea in an approach similar to a lung transplant.

The surgery required the kind of expertise that Dr. Downey has acquired over two decades of performing thoracic surgeries, and the teamwork of a highly trained operating room staff.

## In the Running Again

The operation took place on November 21, 2011, and just a few days later, on Thanksgiving morning, Dr. Downey discharged Pierce.

“I was free to go! My parents were actually a little bent out of shape because they hadn’t been to the market to buy groceries for the holiday,” Pierce recalls. “But when we sat down to a turkey dinner that night we decided to rename the holiday ‘Lungsgiving!’”

Pierce started taking long walks the next day, and at his next appointment Dr. Downey gave him the all-clear to start running again. “‘We didn’t operate on your legs,’ he said. ‘You can run whenever you want!’”

Six months later, Pierce crossed the finish line at the Boston Marathon.