Rare Diabetes Foot Complication Becoming More Common

At first, Kim Schraeder did not worry about the swelling in her left foot. After all, it was pulling double-duty while her other foot recovered from surgery.

"I have a high threshold for pain," she says. "It hurt to walk on it, but I didn't think it was serious."

Just a year earlier, doctors diagnosed the 48-year-old mother of four with diabetes. The recent surgery on her right foot corrected a bunion to prevent recurring diabetic ulcers. As Schraeder's bunion recovery moved forward, her left foot moved outward. Her ankle bent inward. The foot grew so swollen none of her shoes fit. The skin was warm and red. Schraeder started to worry.

During a follow-up visit with her foot and ankle surgeon, she spoke up. Her doctor took one look and said, "We have a problem."

Schraeder was diagnosed with a rare diabetes complication called Charcot foot. It is estimated to affect less than one percent of people living with diabetes. Now doctors with the American College of Foot and Ankle Surgeons say Charcot foot's prevalence appears to be growing as more Americans develop diabetes. Some worry that few patients—or their care providers—seem to know about this complication or its warning signs.

Charcot foot is a sudden softening of the foot's bones caused by severe neuropathy, or nerve damage, a common diabetic foot complication. It can trigger an avalanche of problems, including joint loss, fractures, collapse of the arch, massive deformity, ulcers, amputation and even death. As the disorder progresses, the bottom of the foot can become convex, bulging like the hull of a ship. Since most people with Charcot cannot feel pain in their lower extremities, they continue walking on the foot, causing further injury.

Charcot cannot be reversed, but its destructive effects can be stopped if the complication is detected early.

The symptoms of Charcot foot appear suddenly. They include warm and red skin, swelling and pain. A person living with diabetes who has a red, hot, swollen foot or ankle requires emergency medical care because these can also be symptoms of deep vein thrombosis or an infection.

Doctors say Charcot's ambiguous symptoms can lead to misdiagnosis. Since patients do not feel pain, doctors may presume the swelling is due to infection and prescribe antibiotics. Meanwhile, the patient continues walking on a foot that is collapsing.

"More people with diabetes, their families and their care providers need to know about Charcot foot," says J.T. Marcoux, DPM, FACFAS, one of only a handful of Massachusetts foot and ankle surgeons who perform Charcot foot reconstructions. "When I diagnose a patient with this complication, I telephone their primary care doctor and educate them about it as well."

Schraeder says no one told her about Charcot. "It was not even in my vocabulary," she says. "If someone had educated me, I think I would have been more aware that I had a major problem."

But educating patients and their care providers is only half the battle. Keith Jacobson, DPM, FACFAS is the Houston foot and ankle surgeon who diagnosed and reconstructed Schraeder's Charcot foot. He and Marcoux say there is little they can do when patients are apathetic or in "diabetes denial."
"I've had patients who are literally blind, on dialysis and neuropathic who refuse to admit they have diabetes," says Jacobson. "I have seen horrific deformities with this condition."

Marcoux tells of a middle-aged woman he diagnosed with Charcot. Typically, the first order of business is to immobilize the foot by putting the patient in a boot or cast and to keep the patient off the foot by using crutches or a wheelchair. Marcoux says his patient was "in massive denial" about her Charcot diagnosis.

"I tried to get her off the foot, but she wouldn't do it," he says. "Six months later, she came in with a bone infection and a gaping hole in her foot."

Foot and ankle surgeons expect to see more patients like that as diabetes rates soar.

Today, Schraeder is back to walking on both feet. Three months after her Charcot diagnosis, she underwent reconstructive surgery. Her recovery included spending three months in a "halo" external fixator where a series of pins and screws are placed into the bones and connected to clamps and rods outside the skin. She then wore a custom shoe boot for nearly a year.

The experience taught her four children to appreciate their mother a lot more since all the cooking, cleaning and laundry fell on their shoulders.

"They're all like hawks now," she says. "If I’m sitting here with bare feet, they’ll look to make sure they’re not red, hot and swollen."

Example of a Charcot foot deformity.
Example of a Charcot foot deformity with previous toe amputations.