



NEURO CARE NETWORK

CASE STUDY:

Lumbar stenosis without neurogenic claudication and lumbar radiculopathy

Presentation

In January 2025, East Lansing, Michigan, resident Richard Dines started working out at a local Planet Fitness gym. Shortly after beginning his new health regimen, the 74-year-old's back started to hurt. It's a common symptom but Dines found that the pain was growing more and more intense. After a primary care visit, he was referred to a neurologist at MSU Health Care.

Assessment

The MSU Health Care neurologist ordered an MRI to investigate the underlying cause, before referring Dines to neurosurgeon <u>Dr. Omar Qahwash</u> at University of Michigan Health-Sparrow for additional consultation.

As part of the <u>Neuro Care Network</u>, a collaboration between MSU and University of Michigan, neurologists and neurosurgeons at MSU Health Care and UM Health-Sparrow work in seamless coordination to ensure patients in Mid-Michigan have access to comprehensive neurologic care without having to leave the region.

Upon reviewing Dines' case, Dr. Qahwash learned that Dines had a history of foot numbness and weakness for the past several years, along with a previous diagnosis of neuropathy. The MRI showed degenerative disease in his lower back, with consequent narrowing of the spinal canal that may have been causing the numbness as well as the pain. It was an atypical presentation patient with this condition are more likely to complain of shooting pain than of numbness. Still, an EMG would make things clearer.

At an initial appointment on June 9, 2025, Dr. Qahwash had discussed the generally available options, including non-invasive procedures like injections or rhizotomy, which treats pain by blocking signals from the nerves to the brain.

As part of the diagnostic workup, Dines then underwent an EMG at MSU Health Care. The test revealed greater nerve damage than the MRI had shown and indicated a need for more urgent intervention.

"The neurologist called me and said, if you don't get surgery, you're not going to walk," Dines remembers. "Well, that got my attention!"

Dr. Qahwash scheduled Dines' surgery for July 16. By that point, Dines was using a walker to get around.

Procedure

"It's a standard operation, Dr. Qahwash says, stressing that though the procedure needed to be done soon, it was not, in the strict sense, emergent.

Dr. Qahwash began the surgery, which took about an hour and a half, by exposing the patient's spine from the rear. Within the spine, arthritic bone and thickened ligaments were compressing nerve roots that run through the spinal canal; Dr. Qahwash carefully shaved these down to relieve the pressure before closing the incision.

"This was really not anything complicated, which is important to say," Dr. Qahwash says. "But what I've found throughout my entire career is it's often not the big, complicated operations that make the most difference for people."

Prognosis

"Six days after surgery I got out of bed and I was walking—no pain, no cane," Dines says. "It was miraculous."

Not only was the back pain improved, but so was the numbness and weakness in his feet, a symptom that had plagued him for years.

"He actually has significant improvement of the strength and sensation in his feet," Dr. Qahwash reports.

Nearly six months post-surgery, Dines is "living life to the fullest," he says, hosting dinner parties, traveling and enjoying an active lifestyle.

"My next trip is to Thailand, and it will be a belated seventy-fifth birthday gift," he says.

Dines remains grateful to Dr. Qahwash and the rest of his care team, not only for their skill but for their efforts to keep him informed and comfortable along the way.

"Dr. Qahwash has an excellent bedside manner," he says. "I felt confident and comfortable after meeting him. I think the more you can do to create trust, to create a sense of well-being in the patient, probably that to some degree is going to affect result."

Teamwork

Like many patients in Mid-Michigan, Dines benefited from a strong working relationship between UM Health-Sparrow neurosurgeons and MSU Health Care neurologists, which have integrated their neurological services in a collaboration called the Neuro Care Network. Through the network, patients have access to comprehensive neurologic care, including the areas only Comprehensive Stroke Center, as well as the expertise of neurologists, neurosurgeons, nurses and therapists across the full spectrum of multidisciplinary neurologic care through both institutions.

"The goal of the Neuro Care Network was to develop more efficient ways deliver care, and to reduce friction, and I think that that has been achieved," says <u>Dr. Amit Sachdev</u>, Associate Chief Medical Officer of Neurology and Ophthalmology at MSU. Overall, he says, the integration of Sparrow with U-M Health in 2023 has been a boon for the local community, keeping many patients in the area who might previously have had to travel to other medical centers for specialized treatment.

"The suite of neurosurgical services expanded, and those neurosurgical services have now developed to include a robust brain tumor program, for example," Dr. Sachdev says. "I think we're at an important moment where neurology care is really developing here in Mid-Michigan. U-M has demonstrated a commitment to this community, and patients have been grateful."