When is surgery right for the elderly?

A simple hand squeeze may provide an important clue

CHICAGO, Illinois, May 14, 2018 – Is grandma strong enough for surgery? It’s a common question regarding patients in the last years of life, when medical problems may increase. If surgery is recommended, how does the physician know if the patient can come through the procedure and do well?

Generally, doctors use the term “frail” to describe a patient who is at higher risk for surgical complications, death or
ending up in a nursing home. Surgery and anesthesia are stressors that can be difficult for a frail person to overcome. But determining frailty is an inexact science, and not a simple standard measurement like high blood pressure.

Since vascular disease is commonly the result of a lifetime’s accumulation of arterial plaque, a high proportion of vascular surgery patients are over age 65. That’s why vascular surgeon Dr. Matthew A. Corriere wanted more information than just his own “gut feeling.”

“In clinic, we have done more of an eyeball test,” said Dr. Corriere, an associate professor of surgery at the University of Michigan. “We look at certain people and assume they are frail by the way they get out of a chair, or walk, or their age.”

Because that is imprecise, some patients who are too frail for surgery may still have an operation, and others who are strong enough for surgery could be denied it, he said.

That could change if surgeons start offering patients a simple, in-office grip strength test, according to new research from the Society for Vascular Surgery.

Dr. Corriere and a team of researchers have found that performing the one-minute test, done with a hand grip device in the doctor’s office, may be a reliable indicator of whether or not surgery is a good option.

The grip measurement is not a new test, but it correlates reliably with other measurements of frailty. Dr. Corriere’s early results have been published in the latest issue of the Journal of Vascular Surgery. Traditionally, physicians have used several different standardized measurements to think about frailty. But most of those measurements, such as a CT scan to determine muscle mass, take time, require a separate office visit and cost money, he said. Furthermore, a walking test is of little use to assess a patient who has peripheral vascular disease in their legs, he added.

As is typical for a vascular surgeon, Dr. Corriere’s patients are mostly elderly. Vascular disease is commonly the result of an accumulation of arterial plaque developed over a lifetime. And while initial research shows that the grip strength test worked well as a predictor of vascular surgery complications, he believes it also would work well for other specialties, such as orthopedics.

“Vascular surgeons have a high proportion of elderly frail patients,” he said, “Orthopedics is another environment where they have many elderly patients, too.”

Patients whose cases are being followed by a geriatric specialist may come to a vascular surgeon with a lot of data on their health.

However, most patients are not that easy to assess, he said. “I don’t think that grip strength should be the only measurement, but it gives the doctor a good idea of the health risks of surgery. With that test, I am no longer going on a ‘sense’ that I have. Instead I have data that the patient is at higher risk.”

What does that mean for grandma?

If the surgery is elective, and if there are other options, the surgeon can use her grip strength as one guide to deciding on the best treatment. If she must have surgery, the test could alert the physician that she needs additional risk evaluation, pre-surgical rehabilitation or a plan for a non-home discharge after surgery.

By the way, being frail does not mean that grandma is dying, he stressed. “It just means she has a decreased physiologic reserve. She has less ability recover from bleeding, anesthesia or low blood pressure and overall, a decreased resistance to stress.”

Being able to have a quick measure of that physiologic reserve, he said, “means we can recognize her level of frailty and not put stress on her that’s avoidable. That helps us provide higher value care.”

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