Getting Better All the Time

Treatment advances continue to improve knee arthritis outcomes

By Nicholas G. Weiss, MD

Arthritis is the most common cause of disabling pain affecting patients today. It is a condition that results in the loss of the smooth cartilage surface of a joint with resultant pain, stiffness, and swelling. The knee is the joint most often affected by arthritis. Fortunately, several effective options exist for the treatment of knee arthritis.

Conservative Treatment

The first line in the treatment of knee arthritis involves conservative measures. Weight loss and exercise are helpful in improving symptoms of arthritis. Likewise, oral medications such as Tylenol® or anti-inflammatories (ibuprofen, naproxen, Celebrex®) are also beneficial. Glucosamine/chondroitin, an over-the-counter dietary supplement, has also been shown to improve symptoms from arthritis of the knee. If the above measures fail, steroid injections can be considered.

Surgical Treatment

When conservative measures fail to provide relief and symptoms significantly limit a patient's activities and lifestyle, total knee replacement (TKR) may be considered. TKR has been refined in the past 30 plus years, with implants and techniques having improved considerably over this time. Approximately 400,000 Americans undergo TKR yearly, and the majority experience pain relief and significant improvement in mobility as a result.

Current data indicates that 90% to 95% of TKRs last 15 years or more. Several factors affect the longevity, including patient weight, activities, and appropriate insertion of the components during surgery.

TKR involves removing the worn cartilage surfaces and relining the knee with artificial surfaces consisting of plastic and metal (called "components"). These components are typically kept in place with special bone cement. As is the case with all surgery, risks exist with TKR. These risks are rare and may include bleeding, infection, nerve injury, blood vessel injury, blood clots, stiffness of the knee, looseness of the knee, or loosening of the components.

Minimally Invasive Surgery

Recently, minimally invasive techniques (minimally invasive surgery, or "MIS") have been developed to give the same favorable outcomes as standard TKR with quicker recovery and less pain in the immediate period after surgery. MIS TKR places essentially the same components within the knee as standard TKR but involves a smaller incision.

More important than incision size is the new approach taken to the soft tissue below the skin. Traditional TKR cuts into the quadriceps tendon, an important active stabilizer of the knee. MIS TKR preserves the quadriceps tendon. This "quadriceps sparing" approach leads to less discomfort and earlier return of function postoperatively than traditional techniques.

MIS TKR also employs a pain management approach using anti-inflammatories, local anesthetic (Novocaine™), and narcotic derivatives to enhance postoperative pain control. Because MIS TKR allows better early function and causes less pain, physical therapy often begins on the day of surgery, further enhancing recovery and also decreasing the chance of blood clots forming in the legs.

Not everyone is a good candidate for MIS TKR. Patients with excessively stiff knees, previous surgery, obesity, or significant deformity of the knee may be better served with standard TKR.

Arthritis can cause disabling pain in any joint, but the knee is most often affected.

Knee arthritis is a common source of disabling pain. Fortunately, effective non-operative and operative treatments exist to assist those suffering with knee arthritis. Total knee replacement, when indicated, is a remarkably successful surgery that provides pain relief and significant improvement in mobility. OE

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