

HSS researchers launch new study to find if stem cell treatment could help people with knee arthritis

Published on July 21, 2016 at 9:53 AM

Researchers at Hospital for Special Surgery (HSS) have launched a study to determine if a treatment using stem cells could help people with painful knee arthritis. To evaluate safety and efficacy, investigators are currently recruiting patients with moderate osteoarthritis, which comes from wear and tear on a joint.

The multi-center study will divide patients into three groups, which will each receive a one-time injection into the knee joint. One group will receive the stem cell treatment. The second group will be given an injection of Monovisc, a hyaluronic acid treatment that lubricates the joint and has been shown to help some patients. A third group will receive a placebo, which will be an injection of saline into the knee joint. It is a blinded study, so participants will not know what they received. There is no cost to participate, and patients will be seen at regular intervals during the first year to see if they experience pain relief and improved function.

Stem cells work by providing new cells to replace damaged, diseased or defective cells. Scientists use different methods to collect them, and the company providing the stem cell treatment in the HSS study harvested them from the amniotic fluid of women giving birth. The cells are frozen, kept in a freezer, and then thawed before they are injected.

"Studies have demonstrated that stem cells are safe and can improve healing and reduce symptoms in a number of different applications, such as cardiac surgery and wound healing," said Dr. Sabrina Strickland, an orthopedic surgeon at HSS and principal investigator. "Amniotic cells have been shown to decrease inflammation and related tissue damage."

Alicia, who is in her 50s and has suffered from knee pain for the past 10 years, went to see Dr. Strickland when she heard about the study. Diagnosed with moderate arthritis, Alicia is hoping the injection she received two weeks ago will enable her to continue to engage in athletic activities. Although she doesn't know if she received the stem cells, Monovisc or a placebo, she says that since the injection, she has noticed less pain when going up and down stairs.

Study participants will have x-rays taken before the injection and again 12 months later. They will also have lab work and will complete questionnaires regarding pain and activity level. Follow-up visits after the initial injection will take place at six weeks, three months, six months, and 12 months.

The study is open to individuals over 18 with moderate knee arthritis who meet additional criteria. Those with severe bone-on-bone arthritis would not be candidates, nor would anyone who has had knee surgery within the past year. Participants must also agree to stop any anti-inflammatory medication they may be taking, such as ibuprofen or naproxen, at least 15 days prior to the injection.

"I have a number of younger patients with arthritis who are looking for a new option, and the stem cell treatment works in a completely different way from current treatments," Dr. Strickland says. "If it is shown to be safe and effective, slowing down the progression of mild to moderate arthritis, we'll be able to help a lot of patients."

Source:
Hospital for Special Surgery
