RSNA®
Radiological Society of North America

820 Jorie Blvd
Oak Brook, IL 60523
TEL 1-630-571-2670
FAX 1-630-571-7837
RSNA.org

NEWS

RSNA Press Release

Surgical Repair of Knee Injuries Does Not Decrease Risk of Osteoarthritis

Released: June 29, 2010

Media Contacts:

RSNA Media Relations: 1-630-590-7762

Linda Brooks
1-630-590-7738
lbrooks@rsna.org

Maureen Morley
1-630-590-7754
mmorley@rsna.org

At A Glance

- Arthroscopic surgical repair of knee injuries does not decrease the risk of osteoarthritis.
- Osteoarthritis of the knee was found in patients 10 years after injury, regardless of treatment.
- More than nine million Americans have osteoarthritis of the knee.

OAK BROOK, Ill. — Arthroscopic surgical repair of torn anterior cruciate ligaments (ACL) or meniscal cartilage injuries in the knee does not decrease the chances of developing osteoarthritis, according to a new study published in the online edition and August print issue of the journal *Radiology*.

A decade after the initial injuries were diagnosed using MRI, localized knee osteoarthritis was evident in patients, regardless of whether or not the injuries had been surgically repaired.

"This study proves that meniscal and cruciate ligament lesions increase the risk of developing specific types of knee osteoarthritis," said Kasper Huétink, M.D., the study's lead author and resident radiologist at Leiden University Medical Center in the Netherlands. "Surgical therapy does not decrease that risk."

According to the American Academy of Orthopaedic Surgeons, the ACL, which is one of four ligaments that connect the bones in the knee, is the most commonly injured ligament. Injury typically occurs when the ACL is overstretched or torn. Approximately half of ACL injuries will cause damage to other areas of the knee, including the meniscus, a wedge-shaped piece of cartilage that acts as a shock absorber for the knee joints. Surgical treatment is usually advised to repair these injuries.

Knee osteoarthritis is a common public health problem affecting more than nine million Americans. It typically develops gradually over several years. Knee osteoarthritis symptoms can include pain, stiffness, swelling and reduction in knee mobility.

For the study, researchers gathered information from the database of a previous multicenter study of 855 patients. The earlier study was conducted from 1996 to 1997 to evaluate the diagnostic value of knee MRI relative to arthroscopy in patients with knee pain.

In the current study, Dr. Huétink and colleagues followed up with 326 of the original 855 patients. All 326 patients had experienced knee pain for four weeks or more prior to the

Copyright © 2014 Radiological Society of North America (RSNA)

initial MRI and treatment. Initial findings and differences in treatment were compared with current follow-up x-rays and MRI exams.

The results showed that patients with ACL and meniscus tears are at a greater risk for developing osteoarthritis. Meniscectomy, which is the surgical removal of all or part of a torn meniscus, did not reduce that risk.

According to Dr. Huétink, the long-term and short-term clinical benefits of partial meniscectomy vs. meniscal repair procedures need to be further investigated.

"There is a higher risk of developing knee osteoarthritis at specific sites after tearing a meniscus or cruciate ligament," Dr. Huétink said. "We showed a direct relationship between injury and long-term consequences, and showed that surgery has no impact on long-term outcomes."

# # #

"Localized Development of Knee Osteoarthritis Can Be Predicted from MR Imaging Findings a Decade Earlier." Collaborating on this paper with Dr. Huétink were Rob G.H.H. Nelissen, M.D., Ph.D., Iain Watt, F.R.C.P., F.R.C.R., Arian R. van Erkel, M.D., Ph.D., Johan L. Bloem, M.D., Ph.D.

Radiology is edited by Herbert Y. Kressel, M.D., Harvard Medical School, Boston, Mass., and owned and published by the Radiological Society of North America, Inc. (*http://radiology.rsna.org/*)

RSNA is an association of more than 44,000 radiologists, radiation oncologists, medical physicists and related scientists committed to excellence in patient care through education and research. The Society is based in Oak Brook, Ill. (*RSNA.org*)

For patient-friendly information on MRI, visit *RadiologyInfo.org*.

Copyright © 2014 Radiological Society of North America (RSNA)