Bone-Tendon-Bone Grafts Not Necessarily a Better Choice for ACL Reconstruction

New Study Shows Hamstring Autografts Are As Effective

ORLANDO, FL – Surgeons making reconstruction choices for an injured ACL can consider both bone-tendon-bone grafts and hamstring autografts as equally viable options in regards to healing, as reported in research today at the American Orthopaedic Society for Sports Medicine’s (AOSSM) Annual Meeting in Orlando, FL.

“We compared the graft-tunnel motion of patients receiving either kind of graft, and noted both groups had similar graft motion at six weeks and one year from surgery, both ranged between 1-2 mm,” commented Justin W. Arner, MD, from the University of Pittsburgh Medical Center (UPMC). “Often surgeons will recommend earlier return to play in patients receiving a BTB graft, but with these findings we cannot support the commonly perceived assumption of earlier healing with BTB.”

The study examined 12 patients with an average age of 24 undergoing anatomic single-bundle ACL reconstruction, with six receiving hamstring autograft and six receiving a bone-tendon-bone graft. Patients participated in a standard physical therapist-supervised rehab program after surgery.

“This study brings into question if there is any real difference in rates of healing of BTB vs. hamstring. This may have ramifications on physical therapy protocols and timing of return to sport following ACL reconstruction,” noted Arner.

This is a pilot study for a larger cohort of patients using this methodology. Quantitative MRI will also be done post-operatively to access graft healing.

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The American Orthopaedic Society for Sports Medicine (AOSSM) is a world leader in sports medicine education, research, communication and fellowship, and includes national and international orthopaedic sports medicine leaders. The Society works closely with many other sports medicine specialists, including athletic trainers, physical therapists, family physicians, and others to improve the identification, prevention, treatment, and rehabilitation of sports injuries. AOSSM is also a founding partner of the STOP Sports Injuries campaign to prevent overuse and traumatic injuries in kids. For more information on AOSSM or the STOP Sports Injuries campaign, visit www.sportsmed.org or www.stopsportsinjuries.org