Arthroscopic All-Inside Anterior Cruciate Ligament Reconstruction: 
*Allograft versus Hamstring Autograft, a Randomized Controlled Pilot Study*

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Disclosure

Gerwin A. Bernhardt, MD, MBA
I have no financial conflicts to disclose.
Anterior cruciate ligament (ACL) ruptures are one of the most common sports associated knee injuries. A high number of ACL ruptures require ACL reconstruction. Reconstruction with autografts frequently results in muscle weakness and pain at donor site. With the use of allografts donor site morbidity can be avoided.

The aim of this study was to investigate the outcome of patients with arthroscopic all-inside ACL allograft versus hamstring autograft reconstruction.
Methods

We performed a randomized controlled pilot study with 30 patients. Patients aged 27 years or older with confirmed ACL ruptures were included. Patients were treated with the same all-inside technique (Arthrex) either with a pre-shaped allograft (“graft link”, LifeNet Health) or with a 6-fold single hamstring tendon (gracilis or semitendinosus). The Study was approved by the local ethics committee and all patients signed an informed consent.
## Methods-Data

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Fifteen patients were included in each group. Basic data did not differ between the two groups. There were more male (67%) than female patients. The mean age was 41.6±9.8 years. There were no re-ruptures in either group. The objective and subjective outcome scorings did not differ significantly between the groups. Operation time was significantly shorter in the allograft group compared to the autograft group (time saving 7.8±4.6 minutes). There were no infections or revisions within the study period of one year.
Our study results show satisfactory objective and subjective outcomes in both groups. The shorter operation time as well as missing donor site morbidity is in favor the use of allograft. These results need to be confirmed in a larger well powered studies in the long term.
Using the all-inside technique ACL allograft reconstruction is superior to hamstring autograft reconstruction in the short term.


Thank you for your attention!

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