Gluteus Maximus Tendon Transfer for Chronic Abductor Insufficiency

Charles Chun-Ting Lin[1], Andrew Sheng Bi[1], Dylan T Lowe, Guillem Gonzalez-Lomas
[1]NYU Langone Health, Department of Orthopedic Surge

Background:
Gluteus medius and minimus tears leading to hip abductor insufficiency is an increasingly recognized source of lateral hip pain and weakness. Often thought of in parallel with rotator cuff tears, fatty infiltration of these tendons can similarly be a predictor of repair failure. Treatments include oral analgesic/anti-inflammatory regimens, therapy, primary repair, or reconstruction using allograft or a gluteus maximus tendon transfer.

Purpose:
This video overview and case presentation demonstrates hip abductor insufficiency after a failed prior primary repair utilizing suture anchors as well as a revision repair with allograft augmentation.

Methods:
The anatomy, pathogenesis, diagnosis, and treatment options for chronic hip abductor insufficiency are reviewed. A case of a 55-year-old female, without prior arthroplasty, with chronic left hip weakness and pain that has failed a prior primary suture-anchor based repair, as well as a revision repair with allograft augmentation is presented. She walks with a persistent Trendelenburg gait and is limited by daily pain with acivity. After a thorough discussion of risks, benefits and prognosis, the patient elected to proceed with hip abductor reconstruction utilizing a gluteus maximus tendon transfer to restore abductor strength and decrease pain.

Results:
Intra-operatively, following a laterally based surgical approach to the hip through prior scar and mobilization of gluteus maximus and tensor fascia lata flaps, any remnant abductor tissue from prior repair and allograft reconstruction was debrided along with old suture anchors. The greater trochanter was gently decorticated and then both the gluteus maximus and tensor fascia latal flaps were repaired to the gluteus medius footprint on the greater trochanter using a double row suture-anchor fixation. Post-operatively the patient reports she is recovering well with physical therapy, the pain has resolved and she is no longer walking with a Trendelenburg gait.

Conclusion:
Chronic hip abductor insufficiency reconstruction using a gluteus maximus tendon transfer is a viable option for chronic ruptures that have failed prior surgical treatment options. This treatment is relatively simple to perform and can offer good functional results. Adherence to post-operative rehabilitation is crucial for optimal outcomes.