Avoiding Initial Pitfalls in the Management of the Patient with FA Instability

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It is important to recognize the proper testing, treatment interventions and common compensations to assure effective progression of techniques and successful outcomes when treating a patient with FA instability. If the position of the left hip is not properly evaluated and understood, patients can be progressed too quickly through an exercise program that can frustrate both the clinician and the patient.

Expected test results in identifying a patho-compensatory Left AIC pattern in the left hip (laxity of the iliofemoral and pubofemoral ligament):

-Extension Drop Test (left and/or right) +Adduction Drop Test (left and/or right) Right Hruska Adduction Lift Test of 1 or 0 ↓ L FA IR / ↑ L FA ER ↓ R FA IR / ↓ R FA ER

The treatment hierarchy begins by repositioning the pelvis in the sagittal and transverse planes via the left hamstrings and/or ischiocondylar (IC) adductor.

1. Bicep Femoris (ER/EXT) repositions

Example: Supine 90-90 Hip Lift with Hemibridge (appendix page 3)

After repositioning the pelvis in the sagittal plane with the bicep femoris, special attention should be paid to approximate and seat the left femoral head into the acetabulum and then continuing AF IR and FA IR stabilization activities with the left gluteus medius non-manual techniques.

2. Ischiocondylar Adductor (IR)

Example: Right Sidelying Adductor Pullback (appendix page 28, #2)

It is recommended that theraband be used as opposition to left AF IR to assist in recruitment of the IC adductor. Once the patient demonstrates their ability to recruit the IC adductor during this exercise the band can be discontinued per therapist discretion.

It is not uncommon for the patient to complain of "cramping" high in their groin during the initial repetitions of this exercise technique, it is important to continue working through the discomfort to properly achieve left AF IR. Don't forget to encourage the patient to breathe correctly. Inhale upon pulling back, exhale upon pushing down. The femoral acetabular (FA) joint will need to glide and approximate over the anterior rim into the acetabulum during this exercise.

Common compensations:

- Patient does not remain in AF IR during FA adduction. Tightness in the superior/posterior capsule of the left hip can limit a patient's ability to maintain the prior shifted back position and they will shift forward upon adduction in the frontal plane.
- Patient will extend their backs and potentially feel their left TFL during attempt at AF IR as they compensate in the sagittal plane.
- Patient will begin exercise in too much right thoracic abduction at the start of the exercise. Position patient with right arm overhead and move right hip closer to the wall or left hip toward shoulder to encourage left thoracic abduction. This must be maintained during the entire exercise.
- Patients will hold their breath or exhale, instead of inhaling at the time they "pull" the femur back.

Any of these compensations may indicate a posterior capsule stretch is necessary before seeking further progression through the hierarchy.

Once patient achieves left AF IR on a repositioned pelvis, it is now time to recruit a left anterior gluteus medius to roll the FA joint into the acetabulum and secure it with progression of concomitant retraining of the left IC adductor and the left anterior gluteus medius in both the frontal and transverse planes.

3. Anterior gluteus medius (IR)

Example: Right Sidelying Left Glute Med (appendix page 49, #2) Right Sidelying Left Glute Med in Hip Extension (appendix page 51, #5)

This exercise allows the clinician to also determine if the left hip is positioned properly on the acetabulum following the adductor pull back exercise.

Common compensations:

- The patient is unable to maintain a position of T-L flexion in the sagittal plane (the patient arches their back on AF IR approximation).
- The patient feels the left TFL or vastus lateralis.
- The patient feels the left glute max.
- The patient does not feel anything.

If the patient fails to feel the anterior fibers of the left gluteus medius, it is another indication of tightness in the posterior superior left hip capsule that prevents the femoral head from rotating properly into the acetabulum. This indicates an active or passive stretch should be performed before proceeding through the algorithm to ensure non compensatory roll and glide onto the acetabulum during FA IR.

4. Posterior Left Ischial Femoral Inhibition

Examples: Sidelying Ischial Femoral Ligamentous Stretch (appendix page 93) Active Left Ischial Femoral Ligamentous Stretch with Right Extended Abduction (appendix page 34)

Re-testing the Hruska Adduction Lift Test and seated goniometric measurements at this point will assist the clinician in determining whether they need this step.

It is also important to determine if the contralateral inferior and/or anterior capsule or musculature is restricted, a strong right AF IR position will be difficult to overcome and a soft-tissue stretch of right side may also be indicated.

5. Anterior/ Inferior Right Capsule Inhibition

Examples: Inferior Pectineus Stretch (appendix page 83) Prone Inferior Glute Max, Adductor Magnus and Quadratus Femoris Stretch (appendix page 85)

If these capsule and ligaments restrictions exist, a patient cannot fully achieve AF IR and maintaining left gluteus medius activation will not be possible.

Once the soft tissue restrictions have been addressed, proper neuromuscular retraining of the left gluteus medius and ischiocondylar adductor to stabilize dual hole control can commence.

Continued rechecking of the Hruska Adduction Lift Test will assure that you have properly maintained the left hip on the acetabulum without compensations during your treatment progression.

Once you achieve a 3/5 right Hruska Adduction Lift Test you can begin upright activities (a patient may begin at a 2/5, but make sure to use wall support and/or table support to prevent functional failure).

It is important to recognize the need for the anterior gluteus medius muscle to stabilize the over lengthened lateral bar of the iliofemoral ligament in these patients. Without a strong left anterior gluteus medius, these patients will continue to compensate into FA ER, when they appear neutral during upright activities. The resultant compensations for this pelvic position can be altered all the way up to Right Brachial and Right Temporomandibular Cervical Chain resulting in neck hyperactivity.

The left sidelying PRI non-manual techniques should include attention to FA adduction and IR with the IC adductor with concomitant activity of the left anterior gluteus medius. If a patient does not feel their anterior gluteus medius, it is indicative to back up and retest the Hruska Adduction Lift Test and or seated goniometric measurements.

As you move through your rehab program, into steps 4 and 5 and attain bilateral hole control and step 6 standing dynamics, you must maintain the activity of the left IC adductor and left anterior gluteus medius to ensure a successful PRI treatment plan. Without securing a left hip into left AF IR, a Left AIC pattern will be fed and outcomes will be limited.