Best Hip Arthroscopy Pearl

Surgical Technique for Capsular Management and Closure During Hip Arthroscopy

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To access the hip joint during hip arthroscopy, we recommend performing a T-capsulotomy, which incorporates a transverse interportal (between the anterior and anterolateral portals) capsulotomy between 12 o'clock to 2 o'clock (right hip), approximately 4cm in length, approximately 5-8 millimeters from the labrum. After acetabular work is completed, the vertical limb of the T-capsulotomy is performed perpendicular to the prior transverse capsulotomy along the length of the femoral neck distally to the capsular reflection at the intertrochanteric line, in order to access the femoral head-neck junction in the peripheral compartment.

At the conclusion of the case, we suggest performing a complete capsular closure incorporating both the vertical limb and the interportal limb. While viewing from the anterior portal, an 8.5 x 110 mm plastic cannula is placed in the distal anterolateral accessory (DALA) portal and an 8.5 x 90 mm plastic cannula is placed in the anterolateral (AL) portal. We suggest closing the vertical portion of the T-capsulotomy first, beginning at the base of the iliofemoral ligament (IFL). A suture shuttling device is placed through the AL portal to pierce the lateral limb of the IFL and shuttle a nitinol wire, while a tissue penetrator is used to pierce the medial limb of the IFL and retrieve the nitinol wire via the DALA portal. A No.2 high–molecular weight polyethylene suture is subsequently placed in the nitinol wire, and the nitinol wire is pulled out of the AL portal to shuttle the suture. Next, both limbs of the suture are retrieved through the DALA portal and tied using reverse half hitches and alternating posts. We typically close the vertical portion of the T-capsulotomy with two to four sutures. The interportal capsulotomy is then repaired using a capsule-closure device (Injector, Pivot Medical, Sunnyvale, CA). The Injector is placed through the AL portal to close the lateral aspect of the interportal capsulotomy by placing suture through the acetabular limb of the capsule and then through the lateral leaflet of the IFL. Similarly, utilizing the DALA portal, the Injector is then used to close the medial aspect of the interportal capsulotomy by placing suture through the acetabular limb and then through the medial leaflet of the IFL. Once the sutures are placed through the interportal capsulotomy, they are tied using standard arthroscopic tying techniques. With the capsule completely repaired, the femoral head articular cartilage will no longer visible. Overall, we find that complete closure of the hip capsule can be challenging, but worth the effort.