Synovectomy and Head and Liner Exchange in Revision Total Hip Replacement Using the Direct Anterior Approach

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Isolated head and liner exchange in total hip replacement has been an ideal option for the management of polyethylene wear, metal corrosion, and acute infection. This video shows head and liner exchange via the direct anterior approach, emphasizing synovectomy in-situ to minimize instability. After a standard direct anterior approach, a detailed explanation of the synovectomy, which is performed in four quadrants, is provided. In addition, appropriate retractor placement to better expose the acetabulum and synovium is highlighted. Recommendations for exposure of the femoral head if complete dislocation is not achieved also are discussed. The technique for bone-graft packing the screw holes and preferred tools for patients with osteolysis are reviewed. Finally, after inserting the new head and liner, the importance of intraoperative provocative stability testing is emphasized.

In a series of 38 hips that underwent head and liner exchange via the direct anterior approach, zero dislocations were reported and re-revision—free survivorship was 95% at a mean follow-up of 26.4 months. Two patients underwent revision because of persistent synovitis and acetabular component loosening. The direct anterior approach is an effective alternative for head and liner exchange in revision total hip replacement.