

Complications of Hip Dislocation

Diagnosing and Treating Complications of Hip Dislocation

Hip dislocation in young adults is usually the result of a sports injury or high-speed traumatic event (e.g., car accident). This report on traumatic posterior hip dislocations in 17 adults (men and women, but mostly men) gives us an idea of the problems that can develop later.

The authors show how getting to the emergency department as soon as possible with an injury like this is very important. Waiting more than six hours to get treatment is linked with serious complications (even death of the femoral head).

Using arthroscopic examination, they were able to record the type of damage seen inside the joint and then compare that information to data collected from the patients' charts. They looked at results compared with time between hip dislocation and treatment (closed reduction) and time between reduction and the need for arthroscopy.

Closed reduction refers to putting the hip back in place without needing an open incision to do so. Levels of hip pain, amount of joint motion, and function were the main outcome measures.

Most of the patients had a tear of the anterior labrum -- that's the fibrous rim of cartilage around the front of the hip socket. It makes sense that the anterior (front) cartilage was torn. As the hip dislocated backwards (posterior dislocation) away from the anterior labrum, there is usually enough force to pull on the labrum.

About one-third of the group also had tears of the posterior labrum -- an indication that the force was enough to push the femoral head backwards far enough past the posterior labrum to tear it, too.

Everyone in the study had signs of damage to the cartilage around the head of the femur (round end of the upper thigh bone). All but one patient also had chondral (cartilage) damage on the acetabular (socket) side of the joint.

Fourteen of the 17 patients had pieces of bone or cartilage floating around inside the joint. Most likely, these fragments were causing most of the pain and loss of motion. The surgeon was able to remove the fragments during the arthroscopic procedure and repair labral tears that occurred earlier as a result of the dislocation. The result was to restore motion and function for everyone. But pain was still an issue for one patient who ended up having a total hip replacement as the final treatment.

X-rays and CT scans were used to take a closer look at the hip before and after treatment. Patients were followed for at least three years before this study was published. Everyone will continue to be followed into the future to see what other changes might occur.

The authors concluded that hip arthroscopy is a safe and effective treatment for symptomatic patients following traumatic posterior hip dislocation. Even when X-rays and CT scans are negative, a look inside the joint is still recommended when pain and loss of motion persist after hip reduction. Floating fragments of bone or cartilage can be present that don't show up on imaging studies.

Arthroscopy may also be needed to see other damage such as tears of the ligamentum teres (the ligament

holding the head of the femur in the middle of the socket). If this ligament isn't repaired or restored, the femoral head won't stay in the center of the socket.

Uneven wear and deformity of the hip joint from this complication can also lead to degeneration and osteoarthritic changes. Other studies show that hip osteoarthritis is more likely to develop if and when loose fragments are left in the joint after the dislocation has been reduced.

Reference: Victor M. Ilizaliturri, Jr, MD, et al. Hip Arthroscopy After Traumatic Hip Dislocation. In *The American Journal of Sports Medicine*. July 2011. Vol. 39. Supplement 4. Pp. S505-S515.