

Central compartment – Diagnostic round, normal anatomy and variations

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Once the three standard portals (anterior, antero-lateral and postero-lateral) to the central compartment have been established, the diagnostic round can be started. Using the three portals, a thorough examination including palpation of the structures is important to make sure no lesion is missed.

The 30°-scope may be used to see the most central parts of the femoral head, fovea and pulvinar, but usually the 70°-scope is sufficient and allows the best view of the different anatomic structures of the central compartment.

Starting the diagnostic round from the anterior portal, the antero-lateral and antero-inferior parts of the labrum, transverse ligament and lunate articular surface can be inspected. By turning the scope, the anterior and lateral parts of the femoral head, ligamentum capitis femoris and pulvinar are visualized.

The largest view of the hip may be obtained through the antero-lateral portal. Turning the scope upwards, the anterior parts of the acetabulum, the labrum, the femoral head, the ligamentum capitis femoris and the pulvinar can be seen. By turning the scope backwards, the postero-lateral parts of the above-mentioned structures are seen.

From the postero-lateral portal, an excellent view of the antero-lateral and lateral parts of the joint as well as the postero-inferior corner of the lunate surface with the posterior part of the transverse ligament may be inspected. An excellent view of the ligamentum capitis femoris and the pulvinar can also be obtained.

Several anatomic variations should be known to avoid interpreting them as pathologic:

The sublabral cleft is an indentation under the labrum, which may be of variable depth. The absence of inflammation and an intact labral substance allow to delimitate it from labral lesions.

Sometimes, a bare linear area which is void of cartilage may be seen anterior or posterior to the fossa. This is a scar of the triradiate physis without pathologic significance.

The stellate crease is a focal area of chondromalacia in contact with the fossa. It has no correlation with clinical symptoms and its precise origin is not yet known. It is supposed by some authors to be a variation of the physeal scar.

Finally, a supraacetabular fossa has recently been described as recess in the supero-medial lunate surface. The significance of this is unknown as this finding is rare.