

Materials and Methods: All patients undergoing hip arthroscopy are prospectively assessed with a modified Harris hip score at 3, 6, 12, 24, 60, 120 and 180 months. A cohort of 20 consecutive patients (21 hips) were identified with Legg-Calve-Perthes disease that had undergone arthroscopy with at least two-year follow-up and represent the substance of this report.

Results: There was 100% follow-up at an average of 56 months (range 24-180 months). The average age was 26 years (range 7-58) with 13 males and 7 females. Findings during arthroscopy included 16 labral tears, 15 hypertrophic or torn ligamentum teres, 7 femoral and 6 acetabular chondral lesions, 5 loose bodies, 3 osteochondral defects, and 1 cam lesion. The average improvement was 25.3 points (preop 56.7; postop 82). All patients were improved, although this improvement was negligible in two patients who underwent repeat arthroscopy. There were no complications.

Discussion and Conclusions: This is the largest reported series of arthroscopy for Legg-Calve-Perthes disease and reflects that it does have a role in the management of painful sequelae. Successful outcomes can often be expected with minimal morbidity. Reduced symptoms and improved quality of life are reasonable expectations, although this data does not suggest that it alters the natural history of the disease process.

Paper 18: Correlation of Clinical and MRI Findings in Professional Dancers' Hip: A New Femoroacetabular Impingement? VICTORIA DUTHON, MD, SWITZERLAND, PRESENTING AUTHOR

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SUMMARY

Dancer's have typical cam or pincer type femoroacetabular lesions, but with normal hip morphology. These lesions, situated in superior/postero-superior position, seem to be due to a dynamic, danse-related femoroacetabular impingement during extreme movements.

DATA

Purpose: Professional ballet dancers use extreme hip range of motion (ROM) to achieve ideal technique.

Many complain of inguinal pain during dancing, and are at risk of early hip osteoarthritis. Goals were to clinically evaluate dancers' hip, to search femoroacetabular lesions on MRI explaining their groin pain, to assess femoroacetabular congruency in splits, to correlate clinical to MRI findings to MRI.

Methods: Twenty professional female ballet dancers and fourteen active healthy female matched for age (control group) completed a questionnaire on hip pain, underwent hip examination with anterior impingement test and measures of passive ROM. All had hips MRI in back-lying position, and while doing splits for dancers, to look for femoro-acetabular morphology, lesions and congruency.

Results: 12/20 dancers complained of groin pain, only while dancing; controls were asymptomatic. The mean passive hip ROM of dancers was normal with a trend to increased abduction and external rotation, and to decreased internal rotation. MRI measures of hip morphology for dancers and controls showed no difference in acetabular depth, acetabular anteversion and femoral-neck antetorsion. Dancers have a lower femoral neck-shaft angle. Mean alpha angle is lower in dancers in anterior, superior and postero-superior position; mean alpha angle in antero-superior position is equal in both groups. Cam morphology was found in only one dancer, none in the controls. MRI of dancers doing splits showed a femoroacetabular subluxation of 2.05 mm. MRI of dancers' hip showed labral tears, cartilage thinning, and pits, all in superior/postero-superior position. Lesions were the same for symptomatic and asymptomatic dancers. Controls had the same amount of labral lesions but in antero-superior position, but had 2 to 3 times less cartilage lesions and pits than dancers.

Conclusions: Dancer's passive hip ROM and morphology are normal. 90% of dancers present labral and/or cartilaginous lesions on MRI, symptomatic only for some of them. No criteria explain this discrepancy between clinical and MRI findings. Dancer's have typical cam or pincer type femoroacetabular lesions, but with normal hip morphology. These lesions, situated in superior/postero-superior position, seem to be due to a dynamic, danse-related femoroacetabular impingement during extreme movements.

Level Of Evidence: III

Paper 19: Novel 3-D Quantification and Classification of Cam Lesions in Patients with Femoroacetabular Impingement CHRISTOPHER BAYNE, MD, USA, PRESENTING AUTHOR

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