

lateral center edge (LCE) angles, the presence of upsloping lateral sourcils, and clinical instability as elucidated from notes by a hip preservation surgeon. Upsloping sourcil was defined as a caudal-to-cranial inclination of the middle-to-far lateral aspect of the acetabular sourcil with loss of the normal lateral acetabular concavity. The presence of clinical instability was determined by a physical examination performed by a dedicated hip preservation surgeon (hyperlaxity, subjective reports of instability, specific provocative tests) combined with imaging findings (hypertrophic labrum, excessive femoral torsion, lateral migration of femoral head, etc). Chi-square tests were used to evaluate the association of the ULS with clinical and other established radiographic signs of hip instability. Patients with gross dysplastic deformity, as defined by a Tonnis angle greater than 15 degrees or significant subluxation of the femoral head as determined by the disruption of the Shenton line, were removed from analysis.

Our review consisted of 104 males (32.9%) and 212 females (67.1%) with a mean age of 34 years. The prevalence of the ULS correspondingly increased with the degree of dysplasia as defined by LCE only, and was found in 65.2% of dysplastic hips (LCE<20 degrees), 29.6% of "borderline" hips (LCE 20-25 degrees), 14.9% of normal hips (LCE 25-40 degrees), and 0% of pincer hips (LCE >40 degrees). Of the hips displaying ULS, 77.9% had clinical instability ($p = 0.026$). The ULS radiographic finding demonstrated 89.0% specificity for clinical instability.

Advancements in hip preservation surgery garners substantial attention towards accurate diagnosis of borderline hip dysplasia and clinical hip instability. The ULS is a radiographic finding that may be useful as a secondary identifier of borderline hip dysplasia and hip instability. Incorporation of this finding into the routine assessment of the painful hip may allow for an earlier and more accurate identification of at-risk patients and help to guide clinical referral and treatment.

Paper #53

UPSLOPING LATERAL SOURCIL: A RADIOGRAPHIC FINDING IN CLINICALLY UNSTABLE HIPS

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Summary: The upsloping lateral sourcil is a radiographic characteristic that may help to identify clinical instability in borderline patients who demonstrate "normal" morphology.

While radiographic findings of frank hip dysplasia are well defined, there is a lack of diagnostic criteria for patients with radiographically "normal" hips who have borderline morphologic deficit and clinical instability. In this study, we evaluate the upsloping lateral sourcil (ULS) as a radiographic finding in the evaluation of these patients.

Charts of 316 patients were reviewed for: AP-pelvis radiographs with confirmed standard quality parameters,