Paper #25

ARTHROSCOPIC SUBSPINAL DECOMPRESSION OF LOW ANTERIOR INFERIOR ILIAC SPINE: CLINICAL OUTCOMES WITH 18-MONTH MINIMUM FOLLOW UP

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Summary: Arthroscopic subspinal anterior inferior iliac spine decompression yielded significantly improved outcome measures and high patient satisfactions at a minimum of 18 months follow up and radiological diagnosis of Low AIIS is often missed on preoperative x-rays.

Background: Low Anterior Inferior Iliac Spine (AIIS) hip morphology is often missed on standard x-ray films and limited data exhibits reporting outcomes after subspinal AIIS decompression.

Purpose: (1) To assess prospective and retrospective x-ray diagnosis of low AIIS. (2) To assess clinical outcomes of arthroscopic subspinal AIIS decompression.

Hypothesis: (1) X-ray diagnosis underestimates the incidence of low AIIS. (2) Patients who underwent subspinal AIIS decompression have significantly improved outcome scores during follow up.

Methods: Patients who underwent arthroscopic subspinal AIIS decompression for low AIIS were reviewed. Preoperative radiographic findings, retrospective analysis of preoperative radiographs, intraoperative findings, modified Harris Hip Score (MHHS), Hip Outcome Scores (HOS), and HOS sport scores were evaluated.

Results: Thirty-four patients (19 males) with a mean age of 34 years underwent arthroscopic AIIS decompression between 2012 and 2014. Preoperative diagnosis of Low AIIS was made in 6/34 cases (17.6%) via Anterior-Posterior (AP) x-rays. During retrospective analysis of the same preoperative radiographs low AIIS was observed in 13/34 (38.2%) cases and no radiographic signs of low AIIS were seen in 21/34 (61.8%) cases. Grade 2 Low AIIS was found in 27 patients and grade 3 in 7. MHHS, HOS, and HOS Sport scores increased from mean preoperative scores of 53.4, 53.1 and 24.0 to 81.7, 84.0 and 76.4, respectively. These increase in MHHS, HOS and HOS Sport scores were all statistically significant ($p < .0001$, $p = .00077$, $p = .00078$). Patients reported an average satisfaction of 88.7% and 89.3% of patients expressed they would repeat the procedure with their current knowledge.

Conclusion: Arthroscopic subspinal AIIS decompression yielded significantly improved outcome measures and high patient satisfactions at a minimum of 18 months follow up. Radiological diagnosis of Low AIIS is often missed on preoperative x-rays.