

RADIOGRAPHIC HIP OSTEOARTHRITIS IS PREVALENT, AND IS RELATED TO CAM DEFORMITY 12-24 MONTHS POST-HIP ARTHROSCOPY

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ABSTRACT

Background: The prevalence of radiographic hip osteoarthritis (OA), and its relationship with outcomes after hip arthroscopy is unclear.

Objectives: The aims of this study were to: (i) describe the prevalence of OA and cam deformity 12-24 months post hip arthroscopy; (ii) to determine the association between radiographic OA and cam deformity, surgical and clinical findings and symptoms; and (iii) describe the differences between legs for radiological and clinical findings.

Study Design: Cross sectional study

Methods: Seventy patients, mean age 36.7(range 18-59) years, 12-24 months post-arthroscopy.

Main outcome measures: Outcomes were collected prospectively via clinical and radiographic examination. (i)Prevalence of OA and cam deformity measured on and anteroposterior pelvic radiographs; (ii)Hip disability and Osteoarthritis Outcome Score (HOOS) and International Hip Outcome Tool (iHOT-33) patient-reported outcomes (PROs); (iii) hip internal and external rotation range of motion (ROM). Associations between OA and surgical findings, PROs and clinical findings were determined using generalized estimated equations, between operated and non-operated sides.

Results: The prevalence of OA was 37%. The likelihood of OA 12-24 months after surgery was positively associated with alpha angle size 12-24 months post-hip arthroscopy surgery ($p=0.010$). There were no differences between operated and non-operated legs in radiographic or clinical findings.

Conclusion: Radiographic OA is prevalent in a population which has undergone hip arthroscopy. Increased OA severity is associated with a higher alpha angle 12-24 months post-surgery.

Level of evidence: Cross-sectional study Level IV

Key words: Alpha angle, femoroacetabular impingement, hip arthroscopy, osteoarthritis

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