

Does Femoral Osteoplasty Improve Long-Term Clinical Outcomes and Survivorship of Hip Arthroscopy? A Fifteen-Year Minimum Follow-up Study

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INTRODUCTION: Although femoral osteoplasty is common practice in treating cam-type femoroacetabular impingement (FAI), long-term data supportive of its ability to optimize outcomes and alter natural history are not available. The purpose of this study was to compare long-term clinical outcomes and survivorship of treatment for symptomatic FAI by arthroscopic correction of labral/chondral pathology with and without femoral osteoplasty.

METHODS: A retrospective cohort study was performed across two consecutive cohorts of patients with isolated cam-type FAI that underwent surgical treatment of labral/chondral pathology without femoral osteoplasty (HS group) or with femoral osteoplasty (HS-OST group). These unique cohorts were established at a distinct transition time in our practice before and after adoption of femoral osteoplasty for treatment of FAI. The final HS group included 17 hips followed for 19.7±1.2 years, and the final HS-OST group 23 hips followed for 16.0±0.6 years. Clinical outcomes were measured with the modified Harris hip score (mHHS). Kaplan-Meier survival was assessed for total hip arthroplasty (THA)-free and reoperation-free survivorship.

RESULTS: Compared to the HS group, the HS-OST group had significantly higher final mHHS (82.7 vs. 64.7, p=0.002) and mHHS improvement (18.4 vs. 6.1, p=0.02). The HS-OST group also had significantly greater 15-year THA-free survivorship (78% vs. 41%, p=0.02) and reoperation-free survivorship (78% vs. 29%, p=0.003).

DISCUSSION AND CONCLUSION: This study demonstrates superior long-term clinical outcomes and survivorship with combined hip arthroscopy and femoral osteoplasty compared to hip arthroscopy alone. These long-term data strongly support femoral osteoplasty in treating cam FAI morphologies and suggest that this treatment alters the natural history of FAI.