

Pain and Quality of Life Scores following Hip Arthroscopy for Femoroacetabular Impingement are More Related to Mental Health than Hip Pathology

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INTRODUCTION:

In patients with femoroacetabular impingement (FAI), mental health has been implicated in both symptom severity and postoperative outcomes. However, there is limited data regarding the independent influences of baseline mental health and hip pathology on patient-reported outcomes over time following hip arthroscopy. This study aims to evaluate the association between mental health and structural hip pathology with pain, hip function, and quality of life.

METHODS:

This was a retrospective review of patient records from a single surgeon's hip outcomes registry. Mental health was evaluated using the Patient-Reported Outcomes Measurement Information System (PROMIS)-Anxiety and Depression scores. Pain was evaluated with Single Assessment Numerical Evaluation Score for Activities of Daily Living (SANE-ADL), while hip-related quality of life (QOL) was evaluated with the International Hip Outcome Tool-12 (iHOT-12). Hip function was assessed with hip outcome scores (HOS) sports specific (SS) and ADL subscales. Separate mixed models were used to predict pain, QOL, and hip function, including hip pathology measures (size of labral tear, grade of chondral damage, preoperative alpha angle), anxiety, depression, and time as fixed effects and individual as a random effect.

RESULTS:

A total of 337 patients were included in this study. There were clinically significant improvements in all PROs following hip arthroscopy regardless of the degree of intraoperative cartilage damage (**Figure 1**). Additionally, preoperative alpha angle, degree of intraoperative cartilage damage, and size of labral tear were not associated with pain or QOL ($p > 0.05$ for all). However, higher levels of anxiety and depression were significantly associated with lower SANE-ADL scores (anxiety estimate: -0.61 ± 0.079 , $p < 0.001$; depression: -0.68 ± 0.086 , $p < 0.001$), iHOT-12 scores (anxiety: -0.71 ± 0.069 , $p < 0.001$; depression: -0.71 ± 0.077 , $p < 0.001$), HOS-SS scores (anxiety: -0.69 ± 0.091 , $p < 0.001$; depression: -0.70 ± 0.076 , $p < 0.001$), and HOS-ADL scores (anxiety: -0.42 ± 0.051 , $p < 0.001$, depression: -0.59 ± 0.101 , $p < 0.001$).

DISCUSSION AND CONCLUSION:

Patients had similar improvements in pain scores, QOL, and hip function following hip arthroscopy for FAI irrespective of their degree of hip pathology. Additionally, preoperative anxiety and depression are associated with greater pain, decreased QOL, and worse hip function both pre and postoperatively independent of the degree of hip pathology. This suggests that efforts to directly address anxiety and depression may improve outcomes following hip arthroscopy.

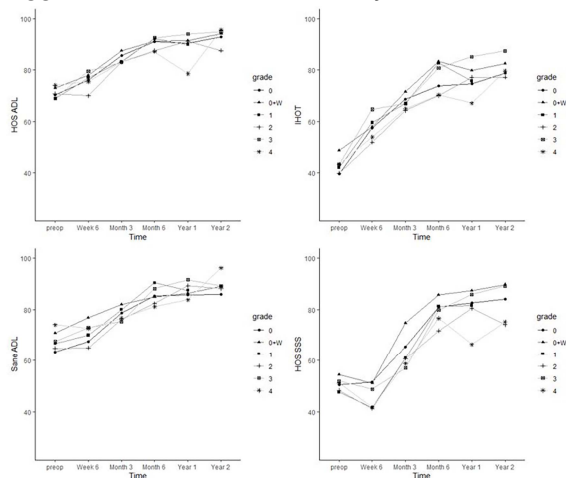


Figure 1. Mean PRO scores pre-operatively and up to 2 years post-operatively by Outerbridge grade. The y-axis is scaled to begin at 40.