Femoroacetabular Impingement: Return to Duty Rates and Postoperative Outcomes

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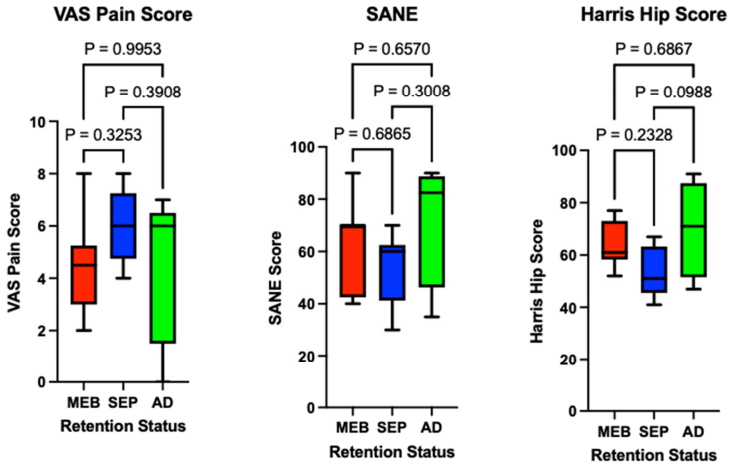
INTRODUCTION: Femorocetabular impingement (FAI) is a condition of the hip that occurs due to morphological features of the femoral head, acetabulum or both.1,2 These morphological features are said to be multifactorial and can occur secondary to genetics, pediatric hip disorders and sports participation and many studies claim that they are highly prevalent and asymptomatic in both athletes (54.8%) and the general population (23.1%).1,7 Due to the wide range and severity of these presenting symptoms, the diagnosis of FAI is based on clinical signs, patient reported symptoms and radiographic findings.1,2 Although conservative treatment is still typically the first line treatment of FAI due to the concern of costs and risks associated with surgical treatment, in the past few years, there has been more interest in arthroscopic surgery for the treatment of FAI and the number of procedures have increased ~450% between 2005 and 2013.12,13 Multiple studies on the outcomes of arthroscopy for the treatment of FAI have reported good functional outcomes, high rates of satisfaction and return to sport, as well as low complication rates.4,14 Due to the lack of evidence suggesting good long term outcomes of arthroscopy for the treatment of FAI and the controversy surrounding arthroscopy as a first line treatment, as opposed to conservative therapy alone, more studies are needed that focus on functional and patient reported outcomes both in the short and long term period.

METHODS: Data was analyzed from patients undergoing hip arthroscopy for FAI at a single military institution to identify demographics and varying presentations of the patient population. Patient demographics included age, duty status and military occupational specialty. Other data collected includes chronicity of symptoms (pain, stiffness, reduced range of motion, etc.), past medical history (specifically any prior history of depression or anxiety), duration of physical therapy treatment (if any), pre-surgical radiographic parameters, as well as a baseline Modified Hip Harris Score. At least two years post-operatively, the duty status for each patient was verified (active-duty service, separated for medical reasons, separated for non-medical reasons). Patients who remained on active-duty status were screened to verify any activity/duty limitations due to their hip condition. Patient were then contacted and asked to complete a survey to assess post-operative patient reported outcomes (Visual Analog Scale, Single Assessment Numeric Evaluation, and Modified Harris Hip Score).

RESULTS: Patient ages ranged from 20-41 years old with a mean age of 26.9. The majority of patients were active duty service members with a wide range of occupations. Other non-active duty patients included military dependents. Chronicity of symptoms ranged from 3-120 months with an average of 25.8 months of symptoms. Only two patients from the data set reported that they did not try any form of physical therapy, and of those who did try physical therapy, duration of therapy ranged from 2-96weeks with an average of 17.45 weeks. Baseline Modified Hip Harris scores ranged from 34-67 with an average of 51.36. At two-year follow up, 48% of patients had been separated from military service due to medical concerns, 24% remained on active-duty status, and 28% were separated for non-medical reasons. Of the 24% that remained on active duty, 36% were placed under duty or activity limitations due to their hip condition. One way analysis of variance (ANOVA), along with post hoc testing, was used to assess for differences in means between the three groups. At 2 years follow up, there were no differences in VAS Pain, SANE, or HHS between the three groups (Figure 1).

DISCUSSION AND CONCLUSION: Femoral acetabular impingement (FAI) is usually seen in more active individuals. With much of the military population consisting of young, highly active individuals, there is a high prevalence of FAI within active-duty service members. FAI remains a challenging condition to manage with mixed post-operative outcomes in the active-duty population, including a high percentage of service members being separated from the military due to duty limitations that persist even after surgery.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P = 0.3908
P = 0.3253
VAS Pain Score
10
8
6
4
2
0
MEB SEP AD
Retention Status
SANE
P = 0.6570
P = 0.3008
P = 0.6865
SANE Score
100
80
60
40
20
0
MEB SEP AD
Retention Status
Harris Hip Score
P = 0.6867
P = 0.0988
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Harris Hip Score
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MEB SEP AD
Retention Status