INTERNATIONAL SOCIETY FOR HIP ARTHROSCOPY

Patient-Reported Outcomes and Symptomatic FAI in Women's Professional Soccer

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Joshua D. Harris, MD
Ronald J. Mitchell, MD
Ali Qadeer, MD
Brayden J. Gerrie, MD
Patrick C. McCulloch, MD

HOUSTON Methodist SM
ORTHOPEDICS & SPORTS MEDICINE

Disclosures

- JDH: Editorial Board (Arthroscopy; Frontiers In Surgery); Paid consultant (Smith & Nephew); Royalties (SLACK Incorporated); Research support (Smith & Nephew, Depuy Synthes); Committees (AOSSM SAE, AANA Research, AAOS OAFP WG PM)
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Introduction

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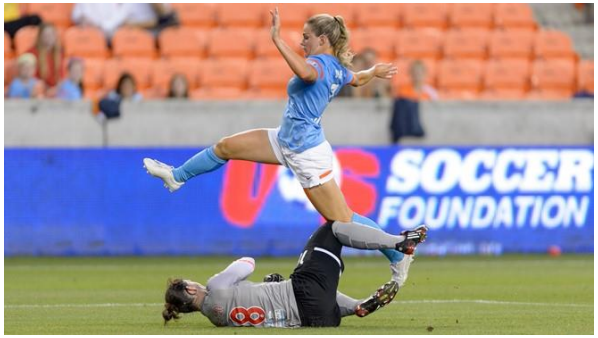
- Symptomatic FAI is a common source of symptoms and decreased performance in soccer
  - Loss of motion (flexion, rotation [IR, ER, IR+ER])
- Patient-reported outcomes are subjective scores that attempt to quantify the general health, quality of life, activity level, joint-, limb-, or disease-specific measures of pain and/or function
  - Over 10 unique questionnaires are commonly used for the hip alone



Purpose

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- In female professional soccer players, to determine:
  1. Normative data of multiple general health-, activity-, hip and groin-, and depression-specific patient-reported outcome (PRO) questionnaires
  2. If any PRO's were able to predict a positive anterior impingement test

Methods

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- Cross-sectional evaluation of professional women's soccer (National Women's Soccer League) in US
- Adult players without prior hip surgery were eligible
- Impingement exam (ant, subspine, lat, post)
  - Recorded as "positive" or "negative"
- Multiple PRO questionnaires administered:

- SF-12
- Tegner activity
- Zung depression index
- Non-arthritic hip score (NAHS)
- HAGOS (Hip And Groin Outcome Score)
- iHOT-12 (international Hip Outcome Tool)

Methods

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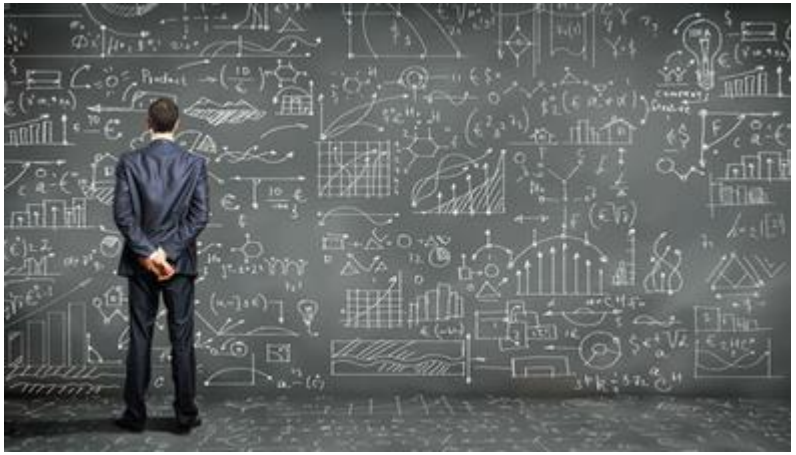
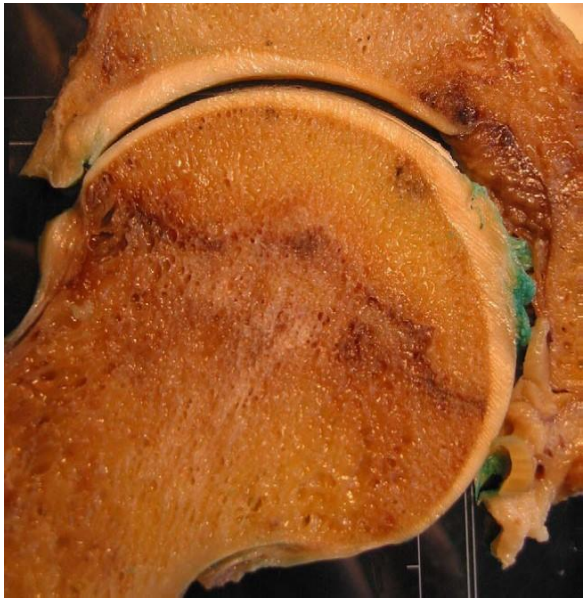
- Statistical analysis:
  - Pearson/Spearman correlation
  - Binary logistic regression to ascertain the effects of each PRO and prediction of positive anterior impingement sign





Results

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- 24 subjects (48 hips; 25.4+/-3.0 years; 2.8+/-2.2 years in experience in NWSL)
  - Tegner activity score: 9.9+/-0.3
  - SF-12 PCS: 52.9+/-7.4
  - SF-12 MCS: 54.3+/-7.0
  - iHOT-12: 96.6+/-5.4%
  - NAHS Total: 97.9+/-4.9
  - Zung 27.6+/-5.9
  - HAGOS:
    - Symptoms: 90.5+/-10.5
    - Pain: 97.8+/-3.4
    - ADL's: 99.4+/-2.2
    - Sports: 97.1+/-4.2
    - Phys activity: 97.9+/-7.1
    - Quality of life: 95.8+/-8.7

Results

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- Left hip (iHOT-12):
  - Model was statistically significant, $\chi^2(5.2)$; p=0.02
  - Model correctly predicted 71% of cases
- Right hip (iHOT-12):
  - Model was statistically significant, $\chi^2(9.1)$; p=0.003
  - Model correctly predicted 79% of cases
- Left hip (SF-12 MCS/PCS):
  - Model was statistically significant, $\chi^2(11)$; p=0.005
  - Model correctly predicted 83% of cases
- Left hip (Zung)
  - Model was statistically significant, $\chi^2(4.1)$; p=0.04
  - Model correctly predicted 83% of cases

Conclusions

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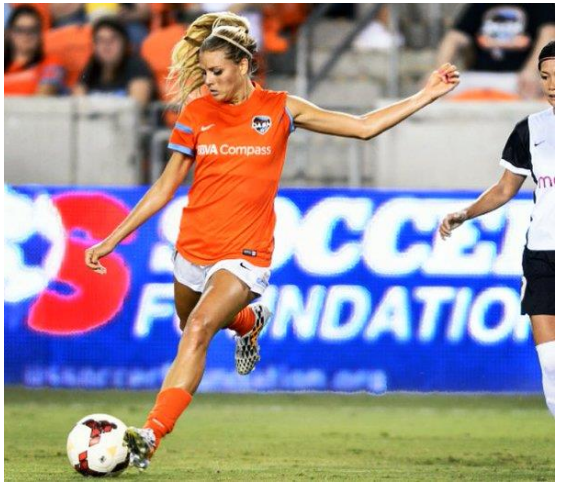
- Multiple general health-, activity-, hip and groin-, and depression-specific PRO's were collected and normative data established in a women's professional soccer club in the US
- iHOT-12, SF-12, and Zung depression scores correctly predicted the presence of a symptomatic anterior impingement test



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