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The Fate of the Contralateral Hip in Femoroacetabular Impingement: Rates and Predictors of Short-Term Symptom Development

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Background

- The pathophysiology of femoroacetabular impingement (FAI) remains to be better understood.
- Only a fraction of all individuals with bony FAI morphology will ever develop hip symptoms or osteoarthritis.

Purpose

- The purpose of the current study was to determine (1) rates of initial and subsequent symptom development in the contralateral hip of patients with symptomatic ipsilateral FAI and (2) to identify predictors of symptomatic contralateral FAI.

Methods

- The study cohort included 179 consecutive patients presenting for surgical treatment of FAI.
- Patients were excluded if they had previously underwent contralateral surgery.
- At baseline and postoperative follow-up time points, patients recorded standardized outcome questionnaires, including the presence of symptoms in the contralateral hip. Significant symptoms were defined as the presence of at least mild pain, while none or slight pain was not included.
- All patients underwent AP pelvis and bilateral 45 degree Dunn lateral radiographs at baseline.

Methods

- Patients developing symptoms in the contralateral hip were subclassified as having symptoms at presentation (initial symptoms) or developing symptoms during the follow-up period (symptom development).
- Patients were followed over a minimum of one year time period postoperatively.
- Multivariate logistic regression was performed to identify independent predictors of symptoms development.

Results

- The study cohort had a mean age of 30.2 years and included 60.3% females.
- FAI was classified as isolated cam in 63.1% (n=113), isolated pincer 1.1% (n=2), and combined type in 35.8% (n=64).
- Forty-two (23.5%) of patients had initial symptoms in the contralateral hip.
- Twenty-two additional hips developed symptoms during the follow-up period (16.1% of initially asymptomatic hips).

Results

- For multivariate logistic regression of any symptoms development (initial or subsequent), competitive athletes ($p=0.041$) and contralateral HNO ratio on AP pelvis ($p=0.009$).
- However, the overall model poorly predicted symptoms development.

Summary

- Approximately one in four patients with FAI presents with symptoms in the contralateral hip.
- Additionally, 16% of initially asymptomatic contralateral hips will develop symptoms during the next several years.
- A variety of clinical, radiographic, and physical examination factors poorly predict the development of symptoms.
- Competitive athletes may be less likely to have contralateral symptoms, while significant contralateral cam deformity on the AP pelvis radiograph may make a patient more likely to have contralateral symptoms.