Preoperative Predictors of Outcome
In The Arthroscopic Treatment of Femoroacetabular Impingement

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Declaration of Interest

I declare that I have:

• done consulting work for: Medacta International & Corin Australia.
• given paid presentations for: Medacta International & Corin Australia
• received a Research grant from: Device Technologies Australia.

Signed:

Dr Arash Nabavi

Bone & Joint
Aims

• Establish preoperative factors associated with a good outcome in the surgical treatment of femoroacetabular impingement

• Test all findings for statistical significance

• Analyse 8 potential predictors of 12 month postoperative outcome
Method

• A prospective study including 253 consecutive patients (280 treated hips) with a mean age of 39 years (49% female) was carried out.

• We defined a “good” score as one which had either a 20 point improvement from preoperative to 12 months postoperative, or a score of over 80 points at 12 month follow up in either the Non Arthritic Hip Score (NAHS) or Modified Harris Hip Score (MHHS).

• We analysed 8 potential predictors of 12 month postoperative outcome. According to these criteria 64 (23%) patients did not achieve a “good” result.
Method

• Patient age, gender, BMI, surgery type (primary or revision), preoperative anxiety level, operative side, patients belonging to the armed forces and patients being treated under the workers compensation scheme were observed.

• We used logistic regression (multivariable, adjusted) and, Fisher's exact test and student t test (bivariate, unadjusted) to analyse the data.

• p<0.05 was regarded statistically significant.
Patients with a high preoperative Harris Hip Score had greater odds of achieving a “good” outcome ($p=0.02$). The mean preoperative Harris Hip Score in the “good” outcome group was 60.03 (SD±20.87, 95% CI, 57-63) compared to a mean preoperative Harris Hip Score of 53.46 (SD±19.36, 95% CI, 49-58) in the rest of the cohort.
No Affect on “Good” Outcome

<table>
<thead>
<tr>
<th>Preoperative Predictor</th>
<th>Odds Ratio</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient Gender</td>
<td>1.28</td>
<td>0.45</td>
</tr>
<tr>
<td>Surgery Type</td>
<td>0.20</td>
<td>0.29</td>
</tr>
<tr>
<td>Age</td>
<td>0.32</td>
<td>0.32</td>
</tr>
<tr>
<td>Operative Side</td>
<td>1.06</td>
<td>0.86</td>
</tr>
<tr>
<td>Preoperative Anxiety Level</td>
<td>0.64</td>
<td>0.21</td>
</tr>
<tr>
<td>Defence Patient Status</td>
<td>3.55</td>
<td>0.23</td>
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</tbody>
</table>

**Note**: Defence patients appeared to have an increased chance of achieving a good outcome (Odds Ratio: 3.55). However, this did not reach statistical significance (p=0.23)
Affect on “Good” Outcome

<table>
<thead>
<tr>
<th>Preoperative Predictor</th>
<th>Odds Ratio</th>
<th>95% Confidence Interval</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workers’ Compensation Status</td>
<td>3.84</td>
<td>0.13-0.51</td>
<td>&lt;0.000</td>
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</tbody>
</table>

- Being a **workers compensation** patient significantly increased the risk of not achieving a “good” outcome (odds ratio 3.84, 95% CI, 0.13-0.51, p<0.000).

<table>
<thead>
<tr>
<th>Preoperative Predictor</th>
<th>Odds Ratio</th>
<th>95% Confidence Interval</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elevated BMI</td>
<td>1.06</td>
<td>0.87-0.99</td>
<td>0.03</td>
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</table>

- Having **elevated BMI** also significantly increased patients risk of not achieving a “good” postoperative outcome.
Conclusion

• This study found a strong association between workers compensation status and not achieving a good outcome following arthroscopic surgery for FAI.

• A negative effect on postoperative outcome was also observed with increased BMI, although this association was modest.

• Patients with a higher preoperative score did better at 12 months than the rest of the cohort, this may suggest that early surgical intervention yields better results at 12 months.

• This data may be useful for both patient and physician to consider when deciding on a suitable treatment in potential surgical candidates suffering from FAI.