Evidence in Focus: Study summary

JOURNEY II BCS restores function comparable to bicruciate retaining Oxford Unicompartmental Knees (UKA).

The bicruciate stabilizing design reproduces anterior and posterior cruciate ligament function and native knee rollback.

Study Design

A single-surgeon retrospective study comparing outcomes at 6–9 month follow-up of patients treated with:

- JOURNEY II BCS: n=64 patients (mean age, 71.3 years ± 7.2 years)
- UKA: n= 50 patients (mean age, 73.8 years ± 6 years)
- Control group: contralateral asymptomatic knees of subjects with UKA

Key Results

Post-operative lateral knee radiograph (full flexion) showed:

- No significant difference in rollback ratio or knee flexion angle among the three groups (Table 1)
- Significant correlation between rollback ratio and knee flexion angle among the three groups (p=0.002) (Table 1)

<table>
<thead>
<tr>
<th>Rollback ratio %, mean (standard deviation)</th>
<th>JOURNEY II BCS</th>
<th>UKA</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>37.9 (± 4.9)</td>
<td>35.7 (± 4.2)</td>
<td>35.3 (± 4.8)</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Flexion angle degrees, mean (standard deviation)</th>
<th>JOURNEY II BCS</th>
<th>UKA</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>123.8 (± 8.4)</td>
<td>125.4 (± 7.5)</td>
<td>127 ± (10.3)</td>
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</tr>
</tbody>
</table>

Conclusion

- JOURNEY II BCS showed no significant difference in rollback ratio when compared with UKA or asymptomatic control knees.
- The implant design is likely to reproduce native anterior and posterior cruciate function and native knee rollback.

Considerations

- Pre-operative evaluation of rollback ratio and knee flexion was not performed