A clinical study on the effectiveness of a medial unloader brace (Agilium Reactive®) in patients with unicompartmental knee OA.

Eine klinische Studie zur Wirksamkeit einer medialen Entlastungsthese (Agilium Reactive®) bei Patienten mit unikompartimenteller Gonarthrose


**Products**

**Agilium Reactive**

**Major Findings**

With Agilium Reactive:

WOMAC score

→ Significant improvements in all WOMAC sub-scores

**Agilium Reactive showed significant improvements in all WOMAC sub-scores**

![Graph](image)

T0= baseline; T1= after 4-week use of Agilium Reactive

Significant improvements: *p = 0.003; **p = 0.043; ***p = 0.001

Patient satisfaction and compliance

→ No or slight restrictions due to orthosis

→ No or slight discomfort while wearing the orthosis

→ Easy or learnable handling of the orthosis

→ Orthosis can be worn over long-time period

→ Orthosis is recommended by the patients
A clinical study on the effectiveness of a medial unloader brace (Agilium Reactive®) in patients with unicompartimental knee OA.

**Population**

Subjects: 13 patients (6 male, 7 female)
Mean age: 61.2 ± 15.9 years (range 41-91 years)
Affected side: left (4 patients); right (7 patients); both (2 patients)
OA classification:
- grade I: 2 patients
- grade II: 2 patients
- grade III: 5 patients
- grade IV: 4 patients
Inclusion criteria:
- unicompartmental medial knee OA (Kellgren-Lawrence grade I-IV)
- genu varum
- older than 40 years
Exclusion criteria:
- unicompartmental lateral knee OA

**Study Design**

Prospective before-and-after study with 4-week follow-up (with Agilium Reactive):

**Results**

<table>
<thead>
<tr>
<th>Category</th>
<th>Outcomes</th>
<th>Results for Agilium Reactive</th>
<th>Sig.*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Clinical effects</strong></td>
<td>WOMAC score</td>
<td>Baseline vs. 4-week follow-up</td>
<td></td>
</tr>
<tr>
<td>Pain sub-score</td>
<td>+ 19% (from 68 to 78 points)</td>
<td>++</td>
<td></td>
</tr>
<tr>
<td>Stiffness sub-score</td>
<td>+ 28% (from 68 to 78 points)</td>
<td>++</td>
<td></td>
</tr>
<tr>
<td>Physical function sub-score</td>
<td>+ 30% (from 64 to 77 points)</td>
<td>++</td>
<td></td>
</tr>
<tr>
<td><strong>Satisfaction</strong></td>
<td>Restrictions</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>no</td>
<td>slight</td>
<td>moderate</td>
</tr>
<tr>
<td>Restrictions</td>
<td>31%</td>
<td>54%</td>
<td>15%</td>
</tr>
<tr>
<td>Discomfort</td>
<td>46%</td>
<td>39%</td>
<td>15%</td>
</tr>
<tr>
<td>Handling</td>
<td>easy: 46%</td>
<td>learnable: 54%</td>
<td>difficult: 0%</td>
</tr>
<tr>
<td></td>
<td>yes: 62%</td>
<td>reluctance: 38%</td>
<td>no: 0%</td>
</tr>
<tr>
<td>Long-term use</td>
<td>yes: 100%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* no difference (0), positive trend (+), negative trend (−), significant (++/−−), not applicable (n.a.)
In summary, the presented results demonstrate the clinical evidence to justify the use of the Agilium Reactive® in patients with genu varum and medial knee OA.