TRIGEN® INTERTAN® Intertrochanteric Antegrade Nail achieves more reliable fixation of unstable intertrochanteric (IT) hip fractures than single screw nails

TRIGEN INTERTAN nail significantly reduces implant related failures and revisions by 81% and 65%, respectively

Study overview

- Systematic literature review and meta-analysis comparing implant related complications and outcomes with TRIGEN INTERTAN nail for the internal fixation of unstable IT fractures to single screw nails: Gamma3™ (Stryker) or PFNA™ (DePuy Synthes)
- Twelve randomized controlled trials and prospective observational studies were analysed

Key results

Implant failures, revision and non-union (Figure 1)

- TRIGEN INTERTAN nail significantly reduced the risk of implant related failures by 81% compared to single screw nails (p<0.00001)
- TRIGEN INTERTAN nail significantly reduced the risk of revisions by 65% versus single screw nails (p<0.0001)
- TRIGEN INTERTAN nail showed a favorable reduction in non-unions compared to single screw nails

<table>
<thead>
<tr>
<th>Study</th>
<th>TRIGEN INTERTAN nail versus single screw nails</th>
<th>TRIGEN INTERTAN nail versus PFNA</th>
<th>TRIGEN INTERTAN nail versus Gamma3</th>
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<tbody>
<tr>
<td>Reduction in implant related failures</td>
<td>↓ 81% p&lt;0.00001</td>
<td>↓ 85% p&lt;0.00001</td>
<td>↓ 66% p=0.007</td>
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<tr>
<td>Reduction in revisions</td>
<td>↓ 65% p&lt;0.0001</td>
<td>↓ 74% p&lt;0.0001</td>
<td>↓ 29% ns</td>
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<tr>
<td>Reduction in non-unions</td>
<td>↓ 46% ns</td>
<td>↓ 38% ns</td>
<td>↓ 61% ns</td>
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Figure 1. Implant related failures, revision, and non-union results. ns: not significant.
Conclusion

Compared to single screw nails, TRIGEN INTERTAN nail may offer patients more reliable fixation of unstable hip fractures, with improved postoperative results in terms of implant related complications, revision rate and functional outcomes, including pain.

Study citation


Available at: Rheumatology and Orthopedic Medicine