Return to Overhead Sport Following Ulnar Collateral Ligament Injury: A Systematic Review

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**Background**
- The prevalence of Ulnar Collateral Ligament (UCL) injuries in overhead athletes has risen exponentially in the past decade.
- 25% major league pitchers report a history of UCL reconstruction (ULCR).
- UCLR is a common procedure to alleviate injury and improve return to play (RTP).
- There has been little research showing outcomes for athletes’ return to same level of play (RTSLP).

**Purpose**
Previous studies have reported a RTP rate ranging from 73-94 percent to pre-injury level of performance after reconstruction of the UCL. The goal of this systematic review was to examine if overhead athletes with UCL injury return to competition following treatment and to what level they return.

**Methods**
- **Inclusion Criteria**
  - Randomized control trials, prospective and retrospective controlled studies, overhead athletes, UCL injury
- **Exclusion Criteria**
  - Not a research study, Non-human, Cadaver, Non-english, Injury to other elbow, Injury to other area of body, Case study <10 subjects, Surgery to elbow not UCLR, No RTP criteria, Surgical technique article, Previous systematic or narrative/literature reviews, articles before 1999.

**Flow of Study Selection**
- 421 titles included for screening
- 303 titles rejected because each did not reflect the systematic review objective
- 9 titles/abstracts identified through hand search
- 80 full text articles
- 118 abstracts screened
- 54 articles were rejected as a reflection of the systematic review objective
- 2 high, 4 low risk of bias

**Results**
- Only 32% of articles investigated pitching performance post UCL surgery
- 88% of these showed a decrease in innings pitched was following UCL surgery
- 75% of these showed an increase in earned runs allowed (ERA) following UCL surgery
- 63% of these showed an increase in walks plus hits per innings pitched (WHIP) was reported following UCL surgery

**Conclusions**
- There is tremendous variability in reporting of data and a lack of a standardized definition for returning to play after UCL injury.
- There needs to be more high quality studies done to analyze the return to sport outcomes in athletes that undergo UCL surgery.

**Clinical Relevance**
- Stronger studies are necessary to provide understanding for the actual benefit of UCL surgery and prognosis for RTP & RTSLP.

**Acknowledgements / References**

Table:
<table>
<thead>
<tr>
<th>Study</th>
<th>Pre-Surgery</th>
<th>Post-Surgery</th>
<th>Value</th>
<th>P-Value</th>
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<td>Argos et al 2006</td>
<td>83.97 (NR)</td>
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**Analysis**
A Modified Down’s and Black Risk of Bias assessment revealed 2 high, 4 low risk of bias.

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