Return to Performance Following ACL Reconstruction in the Professional Footballer: A New Method of Assessment

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I have no financial conflicts to disclose
Introduction

• Outcome following ACL reconstruction is traditionally measured in terms of surgical scoring however this does not always include a return to play
• Other studies define a successful outcome as a return to play at the sport in general, others assess by a return to play at pre-injury level however that does not describe any return to a level of performance within that play
Introduction

• We have not found analysis of the longer term outcomes regarding return to performance in football and therefore have designed and introduce a novel way of assessment for this
Methods

• We reviewed a database of 44 ACL injuries in professional footballers between 2002 and 2012
• We followed their progress for at least 5 seasons following their ACL injury and surgery to assess their time to return to play and the quality of their return
Methods

• This was measured by a scoring system that rewarded:
  – one point for a game appearance at first team level in at least the same division as pre-injury
  – 5 points for an appearance in the Champions League
  – 5 points for an appearance in an International game
• 25 points were deducted for re-rupture
• Players were compared pre-injury scores for 2 seasons with post injury scores for 2 seasons following RTP
• We then compared to a matched group of players without ACL injury
Results

- 43 players (97.8%) made a successful return to play
  - mean 8.2 months; range 4 to 16 months

- The mean return to performance score was 193.67 points
  - range 0 to 601 points
## Results

<table>
<thead>
<tr>
<th>Pre-Injury</th>
<th>Post-Injury</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range</td>
<td>0-207 points</td>
</tr>
<tr>
<td>Total</td>
<td>2295 points</td>
</tr>
<tr>
<td>Mean</td>
<td>52.15 points</td>
</tr>
<tr>
<td>Median</td>
<td>38 points</td>
</tr>
</tbody>
</table>

- 18 players had a better return to performance score post injury
- 25 were worse
- One was the same
RTP Scores in different age groups

- **>30**: Reduction in score (Red), Improvement of score (Blue)
- **27-30**: Reduction in score (Red), Same in score (Green), Improvement of score (Blue)
- **22-26**: Reduction in score (Red), Same in score (Green), Improvement of score (Blue)
- **under 21**: Reduction in score (Red), Same in score (Green), Improvement of score (Blue)
Results

• Return to performance less likely with higher age
• A shorter return to play time resulted in a higher rate of re-rupture and worse return to performance score
• An ACL injury was associated with a poorer outcome than the matched group
Discussion

• ACL remains a significant injury in elite football
• Good return to performance is possible
  – More likely in younger player
• Good performance less likely following ACL injury than if no injury had occurred

• Method of assessment for return to performance requires more study and some refinement
Conclusions

• We describe a novel method of assessment of return to performance following ACL reconstruction in professional footballers
• We aim to refine this scoring system with increased numbers in order to test its reproducibility and accuracy but at the moment it remains unique
Thank you

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