



BAISHIDENG PUBLISHING GROUP INC

8226 Regency Drive, Pleasanton, CA 94588, USA

Telephone: +1-925-223-8242 Fax: +1-925-223-8243

E-mail: bpgoffice@wjgnet.com <http://www.wjgnet.com>

Name of Journal: *World Journal of Orthopedics*

ESPS Manuscript NO: 22887

Manuscript Type: MINIREVIEWS

Reviewer 1:

Non-Reconstructive Options: The paragraph on PRP should be expanded in my opinion. As the Dines study quoted has yet to be published, it is difficult to quote this since the reader does not have the opportunity to look at the methods of this study. My assumption is that it is similar to the Podesta study, in which a cohort with partial thickness injuries failed conservative treatment and underwent a PRP injection followed by a second round of non-op treatment with rest and rehab. Was there a control group in the Dines study (there was not in the Podesta study and this was a major limitation of the study)? If not, I would argue it is unclear whether it was the PRP or a longer period of rest and improved rehab protocols allowed the elite athletes to RTS.

This study was recently presented at the AAOS meeting in 2014 and will be published shortly. We anticipate both manuscripts to reach publication around the same time. This study was a retrospective review of patients of multiple MLB team physicians and as such there was no control group. All injections were done at the time of diagnosis of a partial UCL tear.

I think you accurately highlight the specific patient population UCL repair is beneficial in. Very important to stress repair is only indicated in specific situations. However, one point that may be good to mention here is that for a high school student to RTS at the same or higher level is easier than for a MLB pitcher, as these levels of competition are significantly different. Furthermore, we have no idea if the high school athletes were able to progress on into college or professional (or if they would have regardless of whether they tore their UCL or not)

We agree. These are excellent points. A discussion of these points has been added to the summary.

Reconstructive Options: I would potentially disagree with the following sentence: “Additionally, it appears that use of a muscle splitting surgical approach, without obligate ulnar nerve transposition, is also associated with improved outcome rates and lower complication rates.” I don’t think we can reliably state that not transposing the ulnar nerve every time prevents post-operative complications. To my knowledge, no study to date has looked directly at this.

In Vitale et al. those undergoing an obligatory nerve transfer had a 9% rate of post-operative ulnar neuropathy, while only 4% of those who did not undergo a transposition reported the same.

In the study by Watson et al. cumulatively, when considering all reported outcomes from UCL reconstruction clinical series, they identified a complication rate of 16.6%, with the majority of these complications being ulnar neuropathy (12.9%). Further stratification of these results revealed different rates dependent on procedure, with the original Jobe reconstruction carrying a complication rate of 29.2%, while the modified Jobe technique carried a complication rate of 19.1%. The docking technique and modified docking technique had lower rates of 6% and 4.3% respectively.

Furthermore, it would be difficult to design this study because you would need either all asymptomatic or all symptomatic patients and you would need to randomize them to ulnar nerve transposition or no transposition. It might be a good idea to address graft choice here, specifically looking at graft diameter (recent biomechanical evidence has shown that graft diameter does not improve stability following UCLR)

This study has been added to the discussion. Thank you for bringing it to our attention.

Post-Operative: In regards to lower injury rates in QB, I agree with the issues you presented. Isn’t it also possible that a QB throws the ball significantly less in a season than a pitcher, and therefore would take significantly longer to have the degeneration in their UCL than an elite level pitcher has?

We agree and this has been added.

Reviewer 2:

Excellent work. Congratulations

Thank you.