

ANSWERING REVIEWERS

Dear Editorial Board of the World Journal of Orthopedics,

We would like to thank the editors and reviewers for their interest in our article, "Medial Ulnar Collateral Ligament Reconstruction of the Elbow in Major League Baseball Players. Where Do We Stand?" Below, please find the edits suggested by the reviewers' recommendations. We feel we have adequately addressed all of the comments to the best of our abilities. Please do not hesitate to contact us with any further questions or concerns.

Sincerely,
Anthony A. Romeo

Reviewer 1 Comments for the Author...

Comment 1: Overall, good review of the available literature on the topic. Minor edits are required prior to publishing. Also, it would be worthwhile to include a paragraph or two about how the diagnosis of UCL injury is made. Is it possible that ortho surgeons are diagnosing more of these injuries with current advances in exam/imaging? Or that surgeons are diagnosing less severe/partial injuries, which would explain the increase in reconstructive surgeries?

Authors' response: We will add in this paragraph. In regards to the overdiagnosis question, we do not believe this injury is currently overdiagnosed (unlike SLAP tears). What likely is happening is that, because of sports specialization early on in adolescence, more and more athletes are sustaining UCL tears than in prior years. We have added in a sentence about this.

Action taken: We have added the following to the introduction, "Diagnosis of UCL tears is accomplished through patient history, physical exam maneuvers, and diagnostic imaging.(6) Baseball pitchers who sustain tears to the UCL often report a decrease in velocity as well as a loss of accuracy in the time leading up to their injury.(7) Some patients will have concomitant ulnar nerve symptoms, such as numbness/tingling of the pinky and ulnar half of the ring finger, weakness of the first dorsal interosseous muscle, and others. On physical exam, these patients can have pain along the course of the UCL. They may also have an increase in elbow valgus laxity compared to the contralateral arm, although this can be physiologic in baseball pitchers.(8) Special physical exam maneuvers, including the moving valgus stress test and milking maneuver, are often positive in these patients as these tests stress the UCL in the position of throwing.(6, 9, 10) Although anteroposterior, lateral, and external oblique radiographs are useful to rule out calcifications in the UCL as well as other pathology, magnetic resonance imaging (MRI) with or without arthrography is the current imaging modality of choice to diagnose a UCL tear.(11, 12) It seems that the increase in diagnosis of UCL tears is likely secondary to sports specialization in adolescents leading to an increase in the true number of UCL tears rather than an overdiagnosis on MRI like has been shown with superior labral tears.(13-15)"

Reviewer 2 Comments for the Author...

Comment 1: This is an overall well structured manuscript. I propose publication.

Authors' response: Thank you for your comments

Action taken: None

Reviewer 3 Comments for the Author...

Comment 1: The authors carry out a descriptive study based on references, not a paper producing evidences. Methodology is not well described (databases used, criteria for paper selection, etc.). The structure of the paper should be improved, specifying background, purpose, study design, methods, results and conclusion. Also the contribution to general knowledge is not new. Several previous studies reported an increase in the prevalence of medial ulnar collateral ligament and recent studies regard the incidence and demographic distribution. Although most media and literature regarding ulnar collateral ligament reconstruction surround Major League Baseball and elite-level pitchers, this cohort of players constitute a very small percentage of the overall patient population undergoing these procedures. By the way, Erickson (Am J Sports Med July 2015 43(7): 1770-1774) paper -not cited by the authors- reported that this reconstruction was performed significantly more in patients aged 15-19 years than in any other age group. The own title uses a somewhat confusing terminology: Ulnar collateral ligament of what? (thumb, elbow...). We think there are some other papers with better methodology and this one adds nothing new

Authors' response: We appreciate the reviewer's comments. The reviewer seems to have reviewed this as if it was a systematic review of the literature, which it what not. It was a general review of a topic (UCLR in MLB players) that looked at the current literature as well as several other factors. We will address each comment below.

Comment 2: Methodology is not well described (databases used, criteria for paper selection, etc.). The structure of the paper should be improved, specifying background, purpose, study design, methods, results and conclusion. Also the contribution to general knowledge is not new.

Authors' response: As this was not a systematic review, there was not specific methodology. Furthermore, as this was a review, the proposed structure of the paper by this reviewer is incorrect.

Action taken: None

Comment 3: Also the contribution to general knowledge is not new. Several previous studies reported an increase in the prevalence of medial ulnar collateral ligament and recent studies regard the incidence and demographic distribution

Authors' response: We would disagree with this statement. In our opinion, this review offers a nice synthesis of the current literature surrounding UCLR in MLB players. Also, with the addition of the

physical exam/imaging paragraph, this review can now be a quick reference when diagnosis questions surrounding UCL tears are raised.

Action taken: None

Comment 4: Although most media and literature regarding ulnar collateral ligament reconstruction surround Major League Baseball and elite-level pitchers, this cohort of players constitute a very small percentage of the overall patient population undergoing these procedures. By the way, Erickson (Am J Sports Med July 2015 43(7): 1770-1774) paper –not cited by the authors– reported that this reconstruction was performed significantly more in patients aged 15-19 years than in any other age group.

Authors' response: The reviewer is correct in this statement that more UCLR are performed in adolescents than in MLB pitchers; I authored the study the reviewer is referencing, so I am very familiar with it. Again, the point of this review was not to look at adolescents but rather to look at elite, MLB players. However, to bring the reviewer's point into light, we will add in a sentence regarding our prior PearlDiver study

Action taken: We have added the following, "Recent studies have also shown an increase in the number of UCLR performed in adolescent athletes, specifically those between the ages of 15-19 years.(28)"

Comment 5: The own title uses a somewhat confusing terminology: Ulnar collateral ligament of what? (thumb, elbow...).

Authors' response: We will change this to clarify

Action taken: We have changed the title to, "Medial Ulnar Collateral Ligament Reconstruction of the Elbow in Major League Baseball Players. Where Do We Stand?"

Comment 6: We think there are some other papers with better methodology and this one adds nothing new

Authors' response: We appreciate the reviewer's comments and time in reviewing the paper, but would respectfully disagree as above

Action taken: None