Analysis of Player Statistics in Major League Baseball Players Before and After Achilles Tendon Repair

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We would like to thank the author of this Letter to the Editor for taking the time to read our publication and for the resultant thoughtful, relevant questions raised. We offer these responses to the letter writer's comments.

First, the writer makes an important and informative observation. While we were able to control for variations in age of players and career statistics with use of our four control patients, this was specific to those comparisons of power-side or non-power-side injuries to their matched control players. However, statistical comparisons of our three players with injury to the power side versus those eight players with injury to the non-power side do not benefit from this comparison to matched controls. The letter writer's reference to the upward trend of strikeout rate (K%) in Major League Baseball (MLB) and the natural decrease of productivity as players age is valid, as per the cited K% aging curves. We do agree, as the letter writer suggests, that our findings should not be looked at in a vacuum, as the year and age variables provide meaningful circumstances. In reviewing our data, we find that there is no association of age with side of injury (power side vs. non-power side;

$p = 0.343$), and such lack of association would seem to preclude any confounding impact of age that is being alluded to. Thus, yes, we agree completely that the letter writer's reference to the data from www.fangraphs.com on the K% aging curve should be referred to for readers of our study. It further highlights the caution for readers we suggested in the Limitations section of our manuscript, that "it was not possible to account for players' sport- or team-related confounders, including team style of play, team batting or base-stealing strategies, coaching staff, city and layout of ballpark played in, competition level of the players' team division, and other variables that influence individual player performance metrics" [1].

Second, the notion that the speed score (SS) has become less relevant may be true, although it is not because the statistic falls short of providing a reasonable representation of player speed. Rather, the ultimate base running (UBR) statistic is becoming more salient to sabermetricians because of its superior ability to measure how much value a player adds to the team through base running, not because of its superior ability to proxy for a player's speed. UBR, through its multiple data points and values assigned through linear weights, adds some degree of player response to situational baseball data into the data point in terms of providing a team with greater run value based on run expectancy. We argue that the SS still does have intrinsic value in assessing a player's speed and base-running ability, unlike the UBR statistic, with its components including stolen base percentage, frequency of stolen base attempts, percentage of triples, and runs scored percentage. Perhaps what would be most appropriate is to temper our report of the players being "detrimentally affected" and state instead that the players are appreciably affected at least to the extent that the SS has value in representing a player's speed and base-running ability.

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Compliance with Ethical Standards

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Human/Animal Rights: N/A.

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Required Author Forms Disclosure forms provided by the authors are available with the online version of this article.

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