Reply to Letter to the Editor

The ACL in the Arthritic Knee: How Often is it Present and Can Preoperative Tests Predict its Presence?

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On behalf of my coauthors, I thank Nynke Swart and Anne van den Dorpel for their comments regarding our study [1]. We have read their comments carefully and agree they raise valid questions. In reference to the first question of potential investigator bias: the MRI evaluators, who were fellowship-trained musculoskeletal radiologists, were blinded to the results of the intraoperative Lachman tests. Thus, we do not believe that this contributed to any bias in our study.

They also raised an important point regarding the timing of the Lachman test, which was performed after induction. We chose to do this because patients may have false test results by actively guarding or contracting their muscles during an examination in the office, which has been reported in the literature [2]. Wu and colleagues reported a higher diagnostic sensitivity when patients were examined under anesthesia compared with those examined when awake [3]. Although surgeons will need to routinely perform this while the patient is awake, we chose to perform

the Lachman test after induction to control for these potential confounders. We believe that an examination can be done before induction of anesthesia (*i.e.*, in the office), but it probably is more clinically relevant to perform a postinduction, presurgical evaluation.

Regarding the number of patients selected to undergo an MRI, patients underwent this evaluation at only one of the centers because the costs associated with the other center would have been prohibitive.

Another question that was raised was whether ACL status depended on patient gender. Although this was not reported in the manuscript, there was no difference between men and women. There were 66 men and 89 women who had an intact ACL at the time of TKA ($p = 0.41$).

The final question regarded an unintentional typographical error in Table 1 of the publication. As the letter writers correctly state, there should have been 184 negative Lachman tests, not 194 as was originally written. We regret this error.

Thank you for highlighting some interesting issues relevant to our manuscript.

(Re: Johnson AJ, Howell SM, Costa CR, Mont MA. The ACL in the arthritic knee: how often is it present and can preoperative tests predict its presence? *Clin Orthop Relat Res*. 2012 Aug 3. [Epub ahead of print])

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References

1. Johnson AJ, Howell SM, Costa CR, Mont MA. The ACL in the arthritic knee: how often is it present and can preoperative tests predict its presence? *Clin Orthop Relat Res*. 2012 Aug 3. [Epub ahead of print]
2. Noda M, Kurosaka M, Yoshiya S, Onga T, Mizuno K. Voluntarily evoked positive Lachman test produced by gastrocnemius muscle contraction: a report of three cases. *Am J Sports Med*. 2000;28: 893–896.
3. Wu C, Bach BR, Johnson JC. Arthrometric comparisons of ACL deficiency examined while awake and while under anesthesia. *Am J Knee Surg*. 1992;5:9–15.