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LETTER TO THE EDITOR

Response to letter to the editor concerning "partial extensor mechanism allograft reconstruction for chronic patellar tendon disruption shows superior outcomes in native knees when compared to same technique following total arthroplasty"

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We would like to thank you for the opportunity to respond to the issues raised in Dr Ni's letter and to clarify the aspects of our study [1] in relation to these concerns. In his letter to the Editor, Dr Ni raised several questions [2] which we would like to answer.

First of all, we agree that stiffness is a dreadful complication after knee surgery and should be prevented at all cost. However, in the case of allograft reconstruction after chronic Patellar Tendon disruption, it is paramount to obtain a stable knee that will allow the patient to stand, walk on a horizontal plane, or walk up or down stairs in order to restore the best possible quality of life. In our technique, we chose to immobilize the reconstructed knee for two months in a rigid cast in order to allow not only adequate osteointegration of the donor bone plugs in their respective troughs, but also to allow proper soft tissue integration (Quadricipital Tendon). Further, it has been reported that complete allografts tend to stretch with time, ultimately leading to Extensor Lag and therefore failure of the surgery [3, 4]. Nazarian and Booth's work was a milestone in this direction, demonstrating that allografts should be stabilized by strong non-absorbable sutures in full extension [5]. Abdel et al. [6] also support this theory, as they immobilize their reconstructed knees for a total of three months postoperatively. In conclusion, in the setting of chronic extensor mechanism disruption treated by either allografts or Marlex Mesh, it is important to choose to obtain a stable knee over a mobile one.

Secondly, concerning the "hourglass" technique itself, the allograft bone plugs were shaped to fit exactly within corresponding troughs in the tibia and patella. Therefore, we do not believe this technique alters the anatomy so long as accurate pre-operative planning and graft sizing are undertaken. As expected, we did not encounter any patellofemoral joint issues.

Thirdly, we agree that the TKA and native knee groups are not well matched. However, direct comparison was not the aim of this paper. We decided to separately report the results of these two different populations, as we believe that this data reflects a clinically meaningful difference in outcome. We hope that this information may be of use to the practicing surgeon, in patient selection for this original technique.

Finally, this "hourglass" partial allograft technique is an original technique developed by Neyret et al. [7–9] and performed only in our center. As Dr Ni and his colleagues accurately noted, the sample size is small and the follow-up is only short to mid-term. However, chronic patellar tendon disruption after TKA is a rare complication for which no gold standard exists. It is fair to assume that further studies, if possible multi-centre with larger samples and longer follow-up, are needed to better assess the efficacy of this technique either in native knees or after TKA.

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Compliance with ethical standards

Conflict of interest The authors declare that they have no conflict of interest.

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