

Response to Letter to the Editor: Reliable pain and function outcomes after high tibial osteotomy for medial osteoarthritis in the grey area between osteotomy and unicompartmental replacement

Dear Editor,

On behalf of all coauthors, we sincerely thank the authors for their interest and thoughtful comments. We appreciate this opportunity to further clarify the intent and interpretation of our findings [5].

The purpose of our study was not to position high tibial osteotomy (HTO) as a sport-restoring procedure, but rather to characterise outcomes across pain, function and sport domains in patients within the AKUMA grey zone—a subgroup defined by borderline osteoarthritis (OA) severity and alignment features in whom treatment indication and expectations are often unclear.

HTO has been shown to allow return to sport in selected patients [2]. However, in the context of medial OA and joint-preserving surgery, the primary indication for HTO remains pain relief and functional improvement, while sport recovery is typically considered a secondary outcome [1, 3, 4]. In our retrospective cohort, the primary surgical intent and preoperative sport level were not systematically available. These limitations should be acknowledged when interpreting sport-related outcomes, but they do not invalidate the observed results, which provide a pragmatic estimate of sport performance in a heterogeneous grey-zone population with established OA and long-term follow-up. In this context, we intentionally selected a Tegner score ≥ 5 to reflect regular recreational sport participation rather than minimal activity. While alternative definitions could yield higher apparent success rates, lowering the threshold would not alter the central message of our study.

The authors appropriately highlight the potential role of psychological factors in return to sport. We agree that these variables are clinically relevant and may contribute to the variability observed in

sport-related outcomes. Although psychological factors were not assessed in our study, their systematic evaluation would be of interest in future prospective investigations, particularly in grey-zone populations.

With regard to body mass index (BMI), although BMI was recorded in our cohort, we found no association between BMI and pain-, function- or sport-related outcomes. Consequently, additional stratified analyses were not warranted. We therefore do not consider BMI, in isolation, to be a determining factor for sport performance or surgical indication in this specific population.

In summary, we believe that the points raised support rather than contradict our conclusions. HTO provides consistent pain relief and functional improvement in AKUMA grey-zone knees, fulfilling its primary goal of joint preservation. While sport recovery is multifactorial and often limited in this setting, our findings offer clinically meaningful guidance regarding expected outcomes. Future studies integrating additional determinants may further enhance individualised decision-making.

AUTHOR CONTRIBUTIONS

Tomas Pineda: Writing—review and editing. **Matthieu Ollivier:** Writing—review and editing.

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CONFLICT OF INTEREST STATEMENT

The authors declare no conflicts of interest.

ETHICS STATEMENT

The authors have nothing to report.

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