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LETTER TO THE EDITOR

Ultrasound in finger fractures: Reinterpreting to improve

Ecografía en fracturas digitales: reinterpretando para mejorar

To the editor:

We thank Carballo Martín et al.[1] for their interest in our work[2] and the depth of their analysis.

With regard to the terminological issue raised by the authors, we agree with them on the importance of employing rigorous methodological terminology, and we agree on the distinction between precision and accuracy. The term used in our article was meant to refer to the test's ability to correctly distinguish positive from negative results for fractures, and therefore referred to diagnostic accuracy. Thus, we recognize the importance of the correct use of terminology to enhance conceptual clarity and facilitate the interpretation of the study's results and conclusions.

Regarding comparisons between operators and time periods, we would like to emphasize that our objective was primarily descriptive. Thus, we pointed out trends consistent with the potential influence of experience, adding the *p* value to make it clear that the differences were not statistically significant.[2] However, it is true that we could have expressed this more explicitly, since the wording may lead to misinterpretation if the reader overlooks the *p* value or is unfamiliar with its implications in terms of significance.

We particularly appreciate the feedback regarding likelihood ratios and the weight of evidence, which are tools that facilitate the translation of results to clinical decision-making.[1] With a positive likelihood ratio (LR+) of 8.77 and a negative likelihood ratio (LR−) of 0.23, sonography exhibits a consistent ability to confirm a fracture, but a more limited ability to rule it out. The post-test probabilities derived from these values (77.8% for a positive result and 8.4% for a negative result, considering the observed prevalence) support the view that the primary utility of ultrasound in this context is confirmatory, which is consistent with our proposal to use this technique as a supportive tool, especially in cases of diagnostic uncertainty. In this regard, we ought to qualify that when there is diagnostic uncertainty in this context (moderate or strong clinical suspicion of fracture and normal or inconclusive X-ray findings), the ultrasound is mostly relevant when it is positive. Nevertheless, it is also worth noting that when the ultrasound is negative, subsequent management should be individualized based on the clinical presentation, and in some of these cases (where there is strong clinical suspicion), it may be advisable for the patient to be evaluated by an orthopedic specialist to make decisions regarding treatment collaboratively. However, we believe this cannot be generalized to all patients, as clinical variability plays a significant role in this scenario.

In conclusion, we fully agree that the application of models based on mathematical decision theory would provide critical perspective for translating these findings into clinical practice. We will adopt this suggestion as a fundamental methodological pillar for our future research with the aim of strengthening the clinical utility of our findings.

We thank the authors again for their valuable contributions,[1] which certainly enhance the interpretation of our work.

References

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