How Accurate is Clinical Evaluation in Hindfoot Coronal Alignment?
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Introduction/Purpose: Hindfoot coronal alignment has to be considered in the assessment of patients with foot and ankle complaints, since it guides treatment of certain pathologies. Even when there are multiples techniques described for clinical and radiographic analysis, none of them are widely accepted.

The purpose of the present study was to assess the correlation between clinical and radiographic hindfoot alignment measures and to evaluate the reproducibility of both methods.

Methods: We evaluated 85 patients with foot and/or ankle symptoms. Hindfoot clinical alignment was evaluated through photographs and radiographic alignment was quantified on Long Axial View radiographs. Measurements were made by two observers.

Results: Intraobserver ICC for clinical analysis was good for both observers (ICC 0.78 for each one). Interobserver ICC was moderate for both measurements (ICC 0.58 and 0.56). Regarding radiographic assessment, there was significant intraobserver reliability (observer 1: r = 0.95 and observer 2: r = 0.99; P < .0001). The interobserver reliability was also significant, r = 0.92 for the first measurement and r = 0.95 for the second measurement; P < .0001.

The correlation between both methods was weak for both observers. Observer 1: ICC 0.072; P = .24 for the first measurement and ICC 0.167 P = .029 for the second measurement. Observer 2: ICC 0.23 P = < .001 for the first measurement and ICC 0.137 P = .021 for the second measurement.

Conclusion: We found a weak intra and interobserver correlation between clinical and radiographic assessment. However, we emphasize the importance of performing a complete clinical evaluation and to complement it with a standardized radiographic examination, including a reproducible technique and measurement method.

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