Plantar pressure measurements reliable in assessing RA

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Plantar pressures measurement, frequently used in rehabilitation and related research, is highly reliable in evaluating patients with rheumatoid arthritis (RA), according to researchers at the University Rehabilitation Institute, Republic of Slovenia, in Ljubljana. On the basis of their findings, they concluded that such measurement is suitable for clinical practice, as well as for research, and recommended taking several measurements and using the average.

Vidmar and Novak [1] assessed the reliability of the F-Scan plantar pressure measurement system in 12 patients with RA in 6 consecutive walks; average peak pressure on 7 spots was analyzed for each walk. Intraclass correlation was estimated for each spot and for within-patient coefficient of variation between spots. For each spot, average within-patient coefficient of variation between walks also was calculated.

The intraclass correlations, all statistically significant at \( P < .0001 \), ranged from 0.897 to 0.999; the mean was 0.97 for single measure and 0.99 for average measure estimates. The overall median of within-patient coefficient of variation between walks was 7%. None of the tests of equality of means showed significant differences between walks. The highest variability of measurements was observed at midfoot; all the other spots demonstrated excellent reliability.

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