

Abstract Text

Reliability and Validity of the Duruöz Hand Index in an Argentinian Population with Scleroderma

Duarte V, Martire V, Crespo G, Manzano M, Scarafia S, Marino L, Secco A, Romanini F, Mamani M.

Hospital Bernardino Rivadavia

Background/Purpose: The Duruöz Hand Index (DHI) is a reliable tool for the evaluation of hand's function in patients with scleroderma. The aim of our study was to adapt and to validate the DHI questionnaire in an Argentinian population with scleroderma.

Methods: For validation, 3 rheumatologists adapted and translated to Spanish the original version in French and the final version was re-translated to French by a bilingual person. To evaluate the construct validity, we used the patient global visual analogue scale (VAS), VAS for questions for the same activity, the health assessment questionnaire (HAQ) and the Rodnan. A subsample attended a second visit to evaluate reproducibility, with no modifications in the treatment in relation to the previous visit. Continuous variables were expressed as mean and standard deviation (SD) or medians with their interquartile range (IQR). Spearman's correlation coefficient was used to quantify the degree of correlation between the different VAS, HAQ and Rodnan with the total score. The intraclass correlation coefficient (ICC) was used to assess reproducibility and Cronbach's alpha to evaluate internal consistency.

Results: 45 patients diagnosed with scleroderma were included in the study. 84,44% were women, mean age of 51±13,72 years (SD), 48,89% were Mestizos, while 46,67% were Caucasians with a disease duration of 24 months (IQR: 18-60). 64, 44% patients had diagnostic of limited scleroderma; 77, 78% were right handed and 53, 33% had extra cutaneous manifestations. Raynaud was present in 93, 33%, pitting scars in 33, 33% and digital ulcers in 26, 67%. The median score of the total questionnaire was 4, 5 (IQR: 0-26), of the global VAS 49 (IQR: 10-50), of HAQ 0,3 (IQR: 0-1) and of Rodnan 5 (IQR:2-11). The correlation between the total score of DHI and the patient global VAS was 0, 58, with the HAQ was 0, 63 and with Rodnan 0, 08. The correlation coefficient between the VAS and each group of questions for the same activity in the DHI questionnaire, indicated good correlation for the questions that refer to activities of **kitchen** (0,60;0,71;0,67;0,67;0,59;0,62;0,55), as well as for **dressing** (0,69;0,65;0,57), for **hygiene** (0,61;0,56), and for **the office** questions (0,56;0,73). There was excellent level of correlation with those related to **fine motor activities** with a maximum r value of 0, 78. The reproducibility was 0, 88 (CI 95% 0,76-0,99) and the internal consistency according to Cronbach's alpha was 0,98.

Conclusion: The results from this study show the DHI to be a reliable and valid test for this Argentinian population with scleroderma.