VALIDITY, RELIABILITY, MINIMAL DETECTABLE CHANGE AND FEASIBILITY OF FUNCTIONAL TESTS FOR ADULTS WITH ASTHMA

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Resumo
Objective: To verify the validity, reliability, learning effect, Minimal Detectable Change (MDC) and feasibility of four functional tests (4-Meter Gait Speed [4MGS], Timed Up-and-Go [TUG], Sit-To-Stand [STS] and Short Physical Performance Battery [SPPB]) for adults with asthma. Methods: In this cross-sectional study, fifty-two subjects with stable asthma underwent three sets of different functional tests protocols (4MGS, TUG, STS, SPPB) in a random order by two raters. For validation analysis, tests were compared with a sex-age matched control group without asthma and correlated with the Six Minute Walking Test (6MWT), and peripheral muscle strength, as well as with quality of life and asthma control questionnaires. Intra-rater and inter-rater reliability, MDC and feasibility were verified. Results: Adults with asthma presented worse results than controls in the functional tests, except for SPPB. All functional tests were significantly correlated with 6MWT (0.45<r<0.67) and peripheral muscle strength (0.32<r<0.63), but not with quality of life and asthma control (0.02<r<0.17). The tests presented good to excellent intra-rater Intraclass Correlation Coefficients (ICC0.75 for all). In all tests, a considerable learning effect and variability of measurement was observed, therefore the best of two measurements should be used. MDC ranged from 15 to 31% and all tests were performed in short time, small space and without clinical adverse events. Conclusion: Different protocols of 4MGS, TUG, STS and SPPB are valid, reliable and feasible to assess functional capacity of adults with asthma. These tests are a quick and practical new alternatives for assessing functional capacity in this population.