



Development and evaluation of the Walking Estimated-Limitation Calculated by History questionnaire in patients with claudication

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Résumé en
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BACKGROUND: The Walking Impairment Questionnaire (WIQ) is used to estimate walking impairment in patients with peripheral artery disease; however, it faces frequent errors when self-completed and is complex to score. We aimed to validate an alternative, easily scored four-item tool, the Walking Estimated-Limitation Calculated by History (WELCH) questionnaire. **METHODS:** The WIQ and WELCH were prospectively tested in five centers. We studied 434 patients, among which 298 had a treadmill test (3.2 km/h; 10% slope) to determine their maximum walking time (MWT), and 30 were seen twice during the study period. **RESULTS:** After self-completion, we found at least one error in 177 WIQ (40.8%; 95% confidence interval [CI], 36.3%-45.5%) vs 56 WELCH (12.9%; 95% CI, 10.1%-16.4%) questionnaires ($P < .0001$). When scoring only questionnaires without missing or duplicate answers, 267 WIQ (61.5%; 95% CI, 56.9%-66.0%) vs 393 WELCH (90.6%; 95% CI, 87.4%-93.0%) questionnaires could be scored ($P < .001$). The median MWT was 233 seconds (interquartile range, 133-654 seconds) for the 298 patients who had a treadmill test. When the 296 patients who had both questionnaire scores available were studied, no difference was found between the Pearson r coefficient of correlation of the WIQ ($r = 0.615$) and the WELCH ($r = 0.653$) with MWT ($P = .211$). In the 30 patients who completed the WELCH twice, correlation was $r = 0.839$ ($P < .001$) between the two scores in 22 nonrevascularized patients, and the area under the receiver-operating characteristic curve was 0.830 ± 0.105 ($P < .01$) to discriminate the eight revascularized from the 22 nonrevascularized patients. **CONCLUSIONS:** The WELCH questionnaire is a simple tool to estimate walking limitation in patients with suspected peripheral artery disease. It is easily scored by mental calculation. It may help to standardize the estimation of walking limitation in routine clinical practice.

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