Normative Data Of The Visual Analogue Scale Foot And Ankle (VAS FA) For Pathological Conditions

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Summary: The purpose of this study was to analyze the VAS FA in patients to obtain normative validated foot and ankle specific data for pathologic conditions. The VAS FA was consecutively obtained from a foot and ankle outpatient clinic between September 1, 2006 and August 31, 2009. 452 patients were included. The overall scores and score categories of all different pathologies differed from the previously defined normative data from a non pathologic population. The score categories differed between all different pathologies. The overall scores and score categories of all different pathologies did not differ within the groups. The obtained data is normative for different pathologic conditions of the earlier validated VAS FA. This data may serve as a basis for assessment patient scoring before, during and after treatment.

Background: The Visual Analogue Scale Foot and Ankle Surgery (VAS FA) has recently been validated on healthy subjects. However, normative data of the validated VAS FA for pathological conditions have also been missing so far. The only validated score for pathological conditions is the Short Form 36 (SF 36) which is not foot and ankle specific. The purpose of this study was to analyze the VAS FA in patients to obtain normative validated foot and ankle specific data for pathologic conditions. We hypothesized that different pathological foot and ankle conditions show different scores and score categories.

Methods: The VAS FA is a questionnaire based on 20 questions requiring purely subjective answers; three different question categories (pain, n=4 questions; function, n=11; other complaints n=5) with a possible maximum of 100 points (Maximum score independent from number of answered questions). The VAS FA was consecutively obtained from a foot and ankle outpatient clinic between September 1, 2006 and August 31, 2009. The score results were categorized into different pathologic foot and ankle conditions. The scores including the different score categories were compared between groups and the previously defined normative data from a non pathologic population (One-way ANOVA, significance level p<0.05). Results: 452 patients were included. The VAS FA was completely answered in 424 cases (93.8%). The patients were grouped and scored as follows: isolated Hallux valgus, n=81 (19.1%), mean VAS FA 64; Hallux valgus with claw toes, n=48 (11.3%), 59; forefoot others, n=63 (14.9%), 60; midfoot deformity, n=9 (2.1%), 53; midfoot others, n=44 (10.4%), 54; hindfoot others, n=54 (12.7%), 53; ankle deformity, n=68 (16.0%), 49; ankle instability, n=8 (1.9%), 48; flatfoot, n=11 (2.6%), 41; cavus foot, n=15 (3.5%), 46, others, n=23 (5.4%), 47. Overall scores and score categories of all pathologic groups differed from the non pathologic data (see methods, One-way ANOVA, each p<0.05 for all subgroups except ankle instability and cavus foot.

Conclusion: The overall scores and score categories of all different pathologies differed from the previously defined normative data from a non pathologic population. The score categories differed between all different pathologies. The overall scores and score categories of all different pathologies did not differ within the groups. The obtained data is normative for different pathologic conditions of the earlier validated VAS FA. This data may serve as a basis for patient assessment scoring before, during and after treatment.