Abstract

Background: We undertook this study to develop a grading scale to assess knee osteoarthritis using the Bristol Score. Methods: Between August and November 2004, a clinimetrical, prospective, group-controlled, observational, cross-sectional and analytical study was done. The study sample was comprised of 55 patients, 35 years old and over, with clinical radiographic diagnosis of knee osteoarthritis following the American Academy of Rheumatology criteria. The Bristol Score was used in 25 patients by two standardized orthopedic surgeons. Sensitivity, consistency and validity of the Bristol Score were determined. The new grading scale to assess osteoarthritis Magdalena de las Salinas H-1(MSH1) was used in 30 patients. Sensitivity, consistency and validity of the MSH1 were also determined. Both indexes were compared in these terms. An osteoarthritis radiographic score was developed to assess the validity of the MSH1. Results: Inter-observer intraclass correlation coefficient (ICC) for the Bristol Score in its categories was total 0.62, function 0.84, pain 0.40 and movement 0.89. Inter-observer ICC for MSH1 in its categories was total 0.91, function 0.92, pain 0.79 and movement 0.86 (p < 0.0001). Inter-observer weighed kappa of the Bristol Score was 0.51 (p = 0.002), with 80% agreement. The weighed kappa for the MSH1 was 0.81 (p < 0.0001) with 90% agreement. Correlation between the Bristol Score and the osteoarthritis radiographic score was -0.29 (p = 0.049). Correlation between the MSH1 and the radiographic score of osteoarthritis was -0.62 (p < 0.01). Conclusions: MSH1 achieved better validity than the Bristol Score and can be considered a reliable instrument to assess knee osteoarthritis.

Keywords

knee, osteoarthritis, rating scale.