Abstract
To correlate muscle performance, body composition, pain and joint function in elderly people with gonarthrosis. Method: 21 elderly patients were submitted to bioelectrical impedance analysis, dynamometry associated with electromyographic (EMG) evaluation of isometric knee extension, in addition to pain assessment by the Numeric Pain Intensity Scale and function assessment, by the Western Ontario and McMaster Universities (WOMAC) Osteoarthritis (OA) questionnaire. Correlations were checked by the Pearson’s correlation coefficient. Results: The sample characteristics were mean age 67.36 ± 4.21 years old, body fat percentage 40.57±6.15%, total WOMAC score 43.27 ± 16.32%, and maximum strength 19.95 ± 6.99 kgF. Pain during movement showed a statistical association with WOMAC physical activity domain (r = 0.47) and its general score (r = 0.51); pain intensity at night presented association with WOMAC stiffness domain (r = 0.55), in addition to the negative correlation with the slope values of the Medium Frequency of the EMG signal (r = - 0.57). Conclusion: pain intensity is correlated to functional incapacity in elderly people with knee OA and to a greater expression of fatigue in EMG signal. Levels of Evidence III, Study of non consecutive patients.

Keywords
Osteoarthritis, Pain, Muscle strength, Knee, Aged.