

CORRELATIONS OF JOINT BALANCE WITH THE PERCEPTION OF HEALTH, ANXIETY AND DEPRESSION IN PATIENTS HOSPITALIZED IN THE OCCUPATIONAL DISEASES DEPARTMENT

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Abstract

Introduction: Quality of the medical act, in relation to the patients' needs and expectations, requires evaluation of both the muscular and joint balance, but also of the emotional psychological status, and the quality of life, especially in hospitalized patients.

Materials and Methods: On the day of discharge, patients admitted to the Occupational diseases department voluntarily participated in the evaluation of the joint and muscle balance, completing the Hospital Anxiety and Depression Scale (HAD) and the Short Form 36 questionnaire for self-assessment of health status.

The joint balance by measuring the distances and using the goniometer included the following joints: cervical column, lumbar column, shoulder, elbow, forearm, fist, hip, knee and ankle. The manual muscular check included the main muscular groups of the above-mentioned joints. The study was conducted in two distinct time frames: 11 Dec 2017-31 Dec 2017 (Lot A) and 8-22 January 2018 (Lot B). Patients with Karnofsky performance status <70 were not included.

Results: Of a total of 37 patients discharged in December, 5 had the Karnofsky score <70, 13 patients participated in the study (Lot A). Of a total of 82 patients discharged in January, 3 had the Karnofsky score <70, 23 patients participated in the study (Lot B). The mean scores of the measured joint score fall within the normal range for the respective joints, the muscular balance in patients revealed a normal muscular force, only in 5 patients, localized, this was acceptable. The significant correlations obtained symmetrically in both joints in both groups were as follows: the social function correlates negatively with joint mobility by flexion of the knee (group A, $p = 0.13$ in both knees and in B at the right knee $p = 0.037$ and left knee $p = 0.034$). The perceived pain correlates positively with the degrees of joint mobility of the forearm supination (lot A; $p = 0.01$, bilaterally and in lot B on the right $p = 0.031$ and left $p = 0.048$). The difference in absolute value between joint mobility in left versus right in similar joints significantly correlates positively as follows: by flexion in the elbow joint with the score of depression ($p = 0.017$) and that by lateral flexion in the spine with the energy $p = 0.025$, mental health ($p = 0.017$) and limitations of activity because of emotional cause ($p = 0.014$). Muscle and joint balance completed the diagnosis in 5 cases undetected by initial history and clinical examination: vicious callus after forearm fracture, meniscal lesion, adhesions after sectioning of palmar flexors, lumbar disc herniation.

Conclusions: The parameters of joint and muscular balance, falling within normal ranges, in patients admitted to the department of occupational diseases having multiple, predominantly respiratory and cardiovascular comorbidities, often having associated joint pathology, do not make significant correlations with anxiety, depression and parameters of SF36 functionality subscales. Results obtained on small groups, even if they are consistent, need to be interpreted and validated on larger samples. The joint and muscular balance, as well as patients' perception of physical and emotional functioning, especially in those with osteomuscular disorders, are useful both by completing the diagnosis and by being a standard for assessing the quality of the medical act.

Key-words. joint balance, quality of life, anxiety, depression, occupational diseases.