CAN ASSESSMENTS TARGETING CORTICAL CHANGES AS TWO POINT DISCRIMINATION, LATERALITY JUDGMENT AND BODY IMAGE DRAWING DISCRIMINATE BETWEEN THE AFFECTED AND THE UNAFFECTED SIDE IN PATIENTS WITH UNILATERAL CHRONIC LOW BACK PAIN?

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Introduction Chronic pain disorders go on with cortical changes. In patients with chronic low back pain (CLBP), loss of tactile acuity and altered body perception is observed. Two point discrimination (TPD), laterality judgment (LJ) and body image drawing (BID) are used assessments targeting cortical changes. The purpose of this observational study was to examine if TPD, LJ and BID can discriminate between the affected and the unaffected side in patients with unilateral CLBP.

Method Twenty-seven patients having unilateral CLBP for more than 12 weeks, a pain level higher than two of ten points on the numeric rating scale and a minimum score of four points on the Roland and Morris Disability Questionnaire (RMDQ) were included.

Results No significant interaction effect was found between affected sides and measurements (TPD horizontal $p = 0.310$, TPD vertical $p = 0.177$, response time $p = 0.571$, accuracy $p = 0.190$, BID $p = 1.000$). Comparing this sample with published norm data indicates nearly no differences to healthy population. Concerning this study, the assessments TPD, LJ and BID targeting cortical changes are not able to discriminate between the affected and the unaffected side in patients with unilateral CLBP.

Discussion and Conclusion CLBP is a complex and multidimensional problem. The influences of factors as pain intensity, pain mechanism, pain behaviours and altered body perception to cortical changes is not fully understood. These facts should be included by interpreting assessment data. For further studies it is recommended to distinguish such influencing variables in subgroups.