

Neuropathic Pain Component In Patients with Osteoporosis and Low Back Pain

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Abstract: Introduction. Neuropathic pain caused by the musculoskeletal diseases has recently been the focus of numerous studies.

The aim of this study was to estimate pain syndrome and reveal the presence of neuropathic pain component in patients suffering from osteoporosis and low back pain.

Material and methods. We've examined 107 patients aged 45-89 years (average age 68.1 ± 1.2 years). Patients were divided into 2 groups: A – patients with osteoporosis (n=49), B – patients with low back pain (n=58). To assess the NP component, we used painDETECT, LANSS, DN4 questionnaires. To assess intensity of pain, visual analogue scale (VAS) was used. Patients completed Oswestry and Rolland-Morris Disability Questionnaires.

Results. Regression analysis shows correlation between the questionnaires: LANSS and painDETECT ($r=0.74$, $p<0.001$), DN4 and painDETECT ($r=0.8$, $p<0.001$). It was found correlation between the visual analogue scale (VAS) and screening scales of neuropathic pain: painDETECT and VAS ($r=0.4$; $p<0.001$). LANSS and VAS ($r=0.3$ $p<0.001$), DN4 and VAS ($r=0.3$; $p<0.001$). 6.1% of patients with osteoporosis and 17.2% of patients with low back pain examined by painDETECT were likely to have the NP component. In LBP patients it was found significant correlation between intensity of pain measured by VAS and Oswestry Disability Index ($r=0.7$, $p<0.001$); between VAS and Rolland-Morris Disability Questionnaire ($r=0.6$, $p<0.001$). Significant correlations were found between Oswestry Disability Index and painDETECT screening scale data ($r=0.4$, $p<0.05$).

Conclusion. In patients with osteoporosis and low back pain the pain syndrome may include NP features. Identification of these would promote a treatment strategy targeted at the NP.

Key words: Neuropathic pain, osteoporosis, low back pain