

CLINICAL PRESENTATION AND NEUROLOGICAL ASPECTS OF CHRONIC CERVICOBACHIAL PAIN SYNDROME IN OCCUPATIONAL WORKERS

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Background: Chronic cervicobrachial pain syndrome (CBPS) is one of the leading causes of reduced work capacity among workers exposed to occupational risk factors. Prolonged static postures, repetitive movements, and excessive musculoskeletal strain contribute to the development of nociceptive, myofascial, and neuropathic pain mechanisms.

Objective: To investigate the clinical and neurological characteristics of chronic cervicobrachial pain syndrome in patients with occupational pathology and to identify its major clinical phenotypes.

Materials and Methods: A total of 120 patients with chronic cervicobrachial pain syndrome were examined. The study included tailors, painters/plasterers, and dentists. Clinical and neurological examinations were performed using the Visual Analogue Scale (VAS), Douleur Neuropathique 4 (DN4), Neck Disability Index (NDI), QuickDASH, and Shoulder Pain and Disability Index (SPADI). Instrumental assessment included cervical spine radiography, shoulder ultrasonography, and electroneuromyography (ENMG).

Results: Four major clinical phenotypes of CBPS were identified: vertebrogenic-myofascial, periarticular shoulder, neuropathic, and mixed. The vertebrogenic-myofascial phenotype predominated among tailors (40.0%), while the periarticular shoulder phenotype was most common among painters/plasterers (37.8%). Dentists demonstrated a predominance of the mixed phenotype (35.6%), reflecting the combined influence of cervical, shoulder, and neuropathic factors. Pain intensity and functional impairment were comparable across occupational groups; however, significant differences were observed in pain characteristics and phenotype distribution. Occupational exposure patterns were closely associated with specific clinical manifestations and functional limitations.

Conclusion: Chronic cervicobrachial pain syndrome in occupational pathology is characterized by substantial clinical heterogeneity. A phenotype-based diagnostic approach combined with clinical scales and instrumental methods improves identification of the leading pain generator and facilitates the development of personalized treatment and preventive strategies.

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