



CUMULATIVE TRAUMA DISORDERS-CLINICAL AND THERAPEUTICAL ASPECTS

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Abstract

Introduction. The injuries of musculoskeletal system including joints, muscles, tendons, ligaments, nerves and blood vessels, which happen at workplace are caused by repetitive stress, overuse syndrome and incorrect posture of the body. To treat only the symptoms without changing the conditions at the workplace represents the cause of recurrence of CTD and increasing the economic global burden caused by these disorders.

Material and methods. Trigger finger or stenosing tenosynovitis of the finger is a frequent disease affecting the tendons which flex the fingers of the hand, thus limiting mobility and causing intense pain. In the severe cases, the fingers can block completely while flexing; therefore it is necessary to draw them with the healthy hand to come to their normal position. De Quervain's tendinitis is a type of tenosynovitis of the extensor pollicis brevis and abductor pollicis longus, muscles involved in the prehension motion, which is precipitated by the repetitive movement of the fist, especially with cubital deviation. The median nerve compression in the carpal tunnel is caused by the vibrations, uncomfortable position of the fist and hand, local prehension at the basis of the palm and the force movements of the hand and fingers. Lifting weights can precipitate low back pain commensurable with those weights, the frequency of the lifting, the torsion level of the lumbar spine and poor postural biomechanics. In the shoulder impingement syndrome the rotator cuff is compressed during the movement of the shoulder, traumatising the tendons and the bursa, resulting in painful movements of the shoulder. This disorder appears during the daily activities which demand intense activities of the shoulder, including rotation of the arm and weight lifting. Thoracic outlet syndrome result from the compression of the lower trunk of the brachial plexus and subclavian vessels along the costoclavicular passages, causing typical symptoms: pains, paresthesias, hand weakness and Raynaud phenomenon. Physical therapy represents the first line treatment of this syndrome, consisting of strengthening exercises and stretching the shoulder muscles for opening the thoracic outlet and improving mobility and posture.

Results. Hand – arm vibration syndrome means excessive exposure of the hands to vibrations which can cause circulation disorders of the fingers, of the neurological and mechanical functions of the hand and arms.

Conclusions. Prevention and management of patients suffering from CTD consist in understanding the physiopathological and biomechanical mechanisms, establishing a proper diagnosis and coordination of a comprehensive treatment program, based on some modifications and changes at the workplace.