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Cross-sectional area and density of neck muscles and the relationship to neck pain and occupation: A CT study

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Rationale: Neck pain is a common condition that causes substantial disability. The current research can contribute to a better understanding of risk factors and clinical course of neck pain.

Objective: To investigate the relationship between cross-sectional area and density of neck muscles (Sternocleidomastoid, Upper trapezius, Levator scapulae Anterior scalene, Longus colli, Longus capiti) and the severity and frequency of neck related pain and professional characteristics.

Methods: Analytical cross-sectional study. 124 patients arrived at Barzilai Hospital in Ashkelon for CT scans, without contrast, due to neck pain. Data collection was carried out as part of a large study called neck lordosis: various structural forms, age and relationship with spinal pathology. The independent variables were collected

using the following questionnaires: neck disability index (NDI), Disabilities of the arm, shoulder and hand (quick dash) index of pain and function in the upper extremities, the nordic questionnaire to assess the prevalence of pain in the upper quartile, job satisfaction questionnaire and a job requirements questionnaire. The cross section of the muscle and muscle density was measured on CT scans of the subjects using the Philips Brilliance 64 slice CT scanner. All statistical computations were performed using the SPSS 23.0 for Windows (SPSS, Chicago, IL).

Biography

A Radosher is an Occupational Therapist, completed her Master Degree in Occupational Health from Tel-Aviv University. She worked as a National Ergonomics Advisor at Israel Institute for Occupational Safety and Hygiene.

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