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AbstractBook

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PATTERNS OF PLASMA ANTI-THYROID HORMONE ANTIBODIES IN AUTOIMMUNE RHEUMATIC DISEASES WITH THYROID LESION

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Objective: Comprehensive study of interrelations between endocrine and immune functions over decades has provided a framework for paradigm of functional cohesion of these two systems. New field of innate immunity research regarding natural antibodies (NAbs), that can be produced without antigen exposure and can provide with several physiological functions, was developed. NAbs have considerable similarities with autoantibodies emerged in different systemic autoimmune disorders, and rheumatic diseases, among others. Anti-thyroid antibodies, including anti-T4 and anti-T3 autoantibodies, can also be referred to NAbs. Aim: Assessment of anti-thyroid hormone antibody spectra in various rheumatic diseases.

Methods: The research was performed in accordance with the Helsinki Declaration statements. 160 rheumatic patients with clinical signs of thyroid dysfunction and/or abnormal values of plasma TSH, T4, T3, or anti-TPO were included in the study. Further clinical, ultrasound, and laboratory survey was performed to establish type of thyroid lesion. Anti-T3 and anti-T4 antibodies were measured by ELISA in plasma samples.

Results: High prevalence of thyroid lesions was demonstrated as for RA (59.37%, n=95), SLE (26.26%, n=42), and systemic scleroderma (14.37%, n=23). The most common types of thyroid involvement were found to be hyperthyroidism and Hashimoto's thyroiditis. Patients with rheumatic diseases, including low TSH (34%) and low T3 (45%). Occurrence of antithyroid antibodies in RA, in SLE, and systemic scleroderma was found to be 35%, 42%, and 28%, respectively.

Conclusion: Diagnosis and immunological typing of thyroid involvement in systemic rheumatic diseases have major clinical importance as a result of strong interplay between efficiency of immunotherapy and altered thyroid function. Anti-T3 and anti-T4 antibodies can, in particular, neutralize hormones from medicines, and, therefore, decrease effect of basic treatment in autoimmune rheumatic diseases.

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THE NUMBER OF MEDICATIONS IS ASSOCIATED WITH FRACTURES IN A POPULATION OF DIALYZED OLDER PATIENTS WITH FRAILTY

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Objective: The use of multiple medications is frequently observed in older people, especially in those with multimorbidity. The so-called polypharmacy has been associated with adverse health-related outcomes. In particular, among the most serious consequences of polypharmacy the risk of falls and consequent fractures are well-established [1,2]. However, it is noteworthy that the frailest individuals are often excluded from clinical research, limiting the applicability of evidence to specific populations. Older persons with chronic kidney disease (CKD) undergoing hemodialysis indeed represent a growing population of patients characterized by high vulnerability but still marginally studied. Aim of the study was to explore the relationship between the number of prescriptions and fractures in older patients with CKD undergoing hemodialysis.

Methods: A retrospective, cross-sectional study was conducted on data coming from 107 older patients with CKD undergoing hemodialysis. Sociodemographic, clinical, and biological data were recorded. A 24-item Frailty Index (FI) was computed according to the model proposed by Searle and colleagues. Unadjusted and adjusted logistic regression models were performed to test the association of prescribed medications with history of fractures.

Results: A total of 107 older patients undergoing hemodialysis were included in the study. The mean patient age was 79.1 (standard deviation, SD=7.7) y; 38 (35.5%) participants were women. The mean number of prescribed medications was 9.94 (SD=3.87). The median FI was 0.25 (interquartile range, IQR=0.17-0.29). The number of prescribed medications was significantly associated with fractures (OR 1.18, 95%CI 1.06-1.32, p = 0.003), even after adjustment for potential confounders (OR 1.16, 95%CI 1.03-1.30, p = 0.016).

Conclusion: The number of medications is associated with fractures in a population of frail older people undergoing hemodialysis. Further studies are needed to clarify the cause-effect relationship between polypharmacy and fractures in older persons with severe CKD. If the number of medications will be confirmed as a risk factor for fracture, interventions based on deprescribing will become essential in older persons with CKD undergoing hemodialysis.

References: