Cerebrovascular Events in Systemic Lupus Erythematosus: Diagnosis and Management

Dionysis Nikolopoulos, Antonis Fanouriakis, Dimitrios T. Boumpas

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Περαιτέρω πληροφορίες διατίθενται από την Genesys Pharma.
Welcome to the first issue of MJR for 2019: it hosts interesting contributions from authors across the Mediterranean area and beyond. In this issue we bring together facets of rheumatology clinical care and aspects of laboratory techniques used in the evaluation and validation of immunological tests.

In their editorial, Bragazzi et al. discuss how data originating from large population-based databases could contribute to the decision making and improve clinical practice. They comment on the study of Mansour et al., who collected data from a large health provider organization in Israel. The authors look back to the first steps of rheumatology and present how data collection in this field has evolved over the last 150 years.

A top-quality review article by Nikolopoulos et al. discusses the serious problem of cerebrovascular events in patients with Systemic Lupus Erythematosus (SLE). Stroke is the major central nervous system manifestation of SLE: Boumpas and his team, world experts in the field of SLE, provide comprehensive information about the epidemiology, work-up, management and primary prevention of cerebrovascular events in patients with lupus. The role of thrombolysis as a therapeutic intervention in this particular group of patients is also highlighted in the article.

Systemic sclerosis (SSc)-related interstitial lung disease remains an extremely challenging area in rheumatology with significant advances and numerous ongoing trials investigating regimens with different modes of action, namely conventional and biologic immunosuppressants, anti-fibrotic agents, and cannabinoid receptors. Daoussis & Liossis, who have produced original data of their own in this field, summarise the recent data and provide practical guidance regarding the treatment of this difficult-to-manage subgroup of SSc patients, focusing on mycophenolate mofetil as the cornerstone of treatment for patients with severe pulmonary involvement.

Besides systemic diseases, in daily clinical rheumatology practice we are frequently confronted with syndromes with diffuse or residual musculoskeletal pain requiring a multidisciplinary approach by different medical teams and allied health professionals. Complex regional pain syndrome is a typical difficult-to-treat disease: in this issue Misidou & Papagoras provide an excellent clinical update of this condition with practical tips regarding its overall management. They underline the importance of physical therapy and rehabilitation, which are at least as important as the various pharmacological interventions. The risk of venous thromboembolic events in patients with autoimmune disorders has attracted the interest of rheumatologists over the last years. In the current issue Mansour et al. present a population-based study from the largest health provider in Israel assessing the incidence of deep venous thrombosis and pulmonary embolism in 11,782 rheumatoid arthritis (RA) patients and 57,973...
age- and gender-matched controls. In line with previous reports, they demonstrated an increased risk of deep vein thrombosis in RA patients which was associated with high CRP levels. These findings confirm once more the tight link between inflammation and vascular disease and underscore the continuous need for optimal control of RA.

A complex case of an elderly female patient with microscopic polyangiitis and pulmonary fibrosis is presented by Koutsoviti et al. Interstitial lung fibrosis has been recognized recently as a possible initial manifestation of p-ANCA-associated vasculitis, and such cases could promote awareness amongst rheumatologists and other physicians of this type of pulmonary involvement in this specific subgroup of patients with systemic necrotizing vasculitis.

In our regular research protocol section, we publish in this issue 2 protocols funded by the Greek Rheumatology Society and Professional Association of Rheumatologists after external international peer review. They include a prospective study assessing nailfold capillaroscopy as a prognostic tool for the long-term outcome in SSc patients and the performance of the Assessment of Spondyloarthritis International Society criteria for the classification of ankylosing spondylitis in a large cohort from a regional centre in Crete.

CONFLICT OF INTEREST
The author declares no conflict of interest.

REFERENCES
From Rheumatology 1.0 to Rheumatology 4.0 and beyond: the contributions of Big Data to the field of rheumatology

Nicola Luigi Bragazzi1, Giovanni Damiani2,3,4, Mariano Martini5,6

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In their paper, Mansour and colleagues1 have explored the relationship between rheumatoid arthritis (RA) and venous thromboembolism (VTE), an association which has been relatively overlooked by the existing scholarly literature, despite mounting evidence suggesting a link between coagulation factors and pro-inflammatory molecules. The majority of the previous studies has employed small sample sizes, being generally statistically underpowered, except for few notable exceptions. Utilizing a large nation-wide database, comprising of 11,782 patients with RA, and 57,973 age- and gender-matched controls, Mansour and co-workers were able to perform a scientifically sound and robust study, which could capture a significant association between RA and VTE. Among RA patients, VTE episodes had a rate of 6.92% versus 3.18% among the controls (statistically significant with a p-value <0.001). At the multivariate logistic regression, an odds-ratio (OR) of 2.23 (95% confidence interval or CI 2.05-2.43) and an OR of 1.60 (95%CI 1.44-1.78), both statistically significant, were computed in the model not adjusted for C-reactive protein (CRP) and in the model corrected for CRP, respectively.

In a previously published systematic review of the literature and meta-analysis,2 a pooled risk ratio of 1.90 (95%CI 1.76–2.06) of VTE episodes in RA patients had been found. Mansour et al.1 have replicated this finding, confirming the existence of such link. Taken together, all these results warrant the role of thromboprophylaxis in immune mediated disorders, such as RA. Despite the existence of tools like the “Padua Prediction Score”, there is an urgent need of new validated instruments and scores which assess the risk of VTE episodes in hospitalized patients, giving more weight to current inflammatory rheumatologic conditions, and, therefore, potentially estimating the risk of VTE in a more realistic fashion.

In their papers, Mansour and colleagues1 have used an approach different from the classical one: instead of utilizing a hypothesis-driven conceptual framework, they have relied upon data-driven techniques, including massive data mining. Real-world experiences (RWEs) making use of real-world data (RWD) of patients treated in real-world settings (RWS) are emerging as a vital, integral component of the process of healthcare decision-making, shaping and informing new real-world evidence (RWE).3,4 The use of large clinical databases and registries is paving the way for a new stratified and precision medicine,5 in which data-driven disease phenotyping and profiling play a major role.6-8 This represents an authentic paradigm shift with regards to the classical “one-size-fits-it-all” framework, favoring the rise of a personalized rheumatology, in which diagnosis and treatment are tailored to the specific features and (biological, genetic,